



DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
2 NAVY ANNEX
WASHINGTON, DC 20380-1775

MCO P3500.49A
C 4610
20 Dec 04

MARINE CORPS ORDER P3500.49A

From: Commandant of the Marine Corps
To: Distribution List

Subj: AVIATION TRAINING AND READINESS (T&R) MANUAL, UH-1
(SHORT TITLE: T&R MANUAL, UH-1)

Ref: (a) MCO P3500.14H
(b) MCO 5215.1H

Encl: (1) LOCATOR SHEET

1. Purpose. To publish policies, procedures and standards regarding the training of UH-1 aircrew per reference (a).

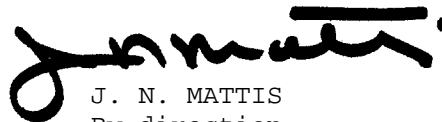
2. Cancellation. MCO P3500.49.

3. Background. Significant changes to reference (a) directed a revision to this Manual in the following categories: Unit Mission Statement, Unit Core Capability Statement, Unit Mission Essential Task List, Unit Core Skill Proficiency requirements, Unit Instructor requirements, and T&R syllabi structure. Reference (a) restructures the T&R manual organization from nine volumes to 25 individual Marine Corps orders and prescribes a unique template to provide the commander with standardized programs of instruction. As such, this order deviates from the five paragraph order format outlined in reference (b).

4. Recommendations. Recommended changes to this order are invited and may be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General, Training and Education Command (C 4610), Marine Corps Combat Development Command, 3300 Russell Road, Quantico, VA 22134-5001.

5. Applicability. This Manual is applicable to the Marine Corps Total Force.

6. Certification. Reviewed and approved this date.


J. N. MATTIS
By direction

DISTRIBUTION: PCN 10203357900

Copy to: 7000110 (55)
7000144/8145001 (1)
7230080 (10)

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

MCO P3500.49A
20 Dec 04

LOCATOR SHEET

Subj: AVIATION TRAINING AND READINESS (T&R) MANUAL, UH-1
(SHORT TITLE: T&R MANUAL, UH-1)

Location: _____
(Indicate location(s) of copy(ies) of this Manual.)

ENCLOSURE (1)

RECORD OF CHANGES

[illegible]

CONTENTS

CHAPTER

- | | |
|---|---------------------------------|
| 1 | UH-1 PILOT |
| 2 | UH-1 CREW CHIEF/AERIAL OBSERVER |

CHAPTER 1

UH-1 PILOT

| | <u>PARAGRAPH</u> | <u>PAGE</u> |
|---|------------------|-------------|
| MARINE LIGHT ATTACK SQUADRON (HMLA) UNIT CORE COMPETENCY | 100 | 1-3 |
| PROGRAMS OF INSTRUCTION (POI) FOR BASIC/TRANSITION PILOT..... | 101 | 1-13 |
| POI FOR CONVERSION PILOT..... | 102 | 1-13 |
| POI FOR REFRESHER PILOT..... | 103 | 1-14 |
| POI FOR MODIFIED REFRESHER PILOT..... | 104 | 1-14 |
| POI FOR FRS INSTRUCTOR PILOT..... | 105 | 1-14 |
| GROUND/ACADEMIC TRAINING | 110 | 1-14 |
| FLIGHT/SIMULATOR/EVENT TRAINING FOR BASIC/TRANSITION PILOT..... | 120 | 1-15 |
| FLIGHT/SIMULATOR/EVENT TRAINING FOR CONVERSION PILOT..... | 121 | 1-16 |
| FLIGHT/SIMULATOR/EVENT TRAINING FOR REFRESHER PILOT..... | 122 | 1-17 |
| FLIGHT/SIMULATOR/EVENT TRAINING FOR MODIFIED REFRESHER PILOT... | 123 | 1-18 |
| FLIGHT/SIMULATOR/EVENT TRAINING FOR INSTRUCTOR TRAINING..... | 124 | 1-18 |
| GRADUATE LEVEL COURSES..... | 125 | 1-18 |
| GROUND/FLIGHT/SIMULATOR EVENT PERFORMANCE REQUIREMENTS..... | 130 | 1-18 |
| CORE SKILL INTRODUCTION PHASE..... | 131 | 1-21 |
| CORE SKILL BASIC PHASE..... | 132 | 1-42 |
| CORE SKILL ADVANCED PHASE..... | 133 | 1-53 |
| CORE SKILL PLUS PHASE..... | 134 | 1-62 |
| INSTRUCTOR UNDER TRAINING (IUT) FLIGHT/SIMULATOR/EVENT PERFORMANCE REQUIREMENTS..... | 140 | 1-74 |
| REQUIREMENTS, QUALIFICATIONS AND DESIGNATIONS..... | 150 | 1-81 |
| ORDNANCE REQUIREMENTS..... | 160 | 1-93 |

FIGURES

| | <u>PAGE</u> |
|---|-------------|
| 1-1 UH-1 NOTIONAL TRAINING PROGRESSION MODEL..... | 1-13 |
| 1-2 MOS 7563 REFLY INTERVAL, COMBAT READINESS PERCENTAGE..... | 1-95 |
| 1-3 MOS 7563 FLIGHT UPDATE CHAINING..... | 1-101 |

CHAPTER 1

UH-1N PILOT

100. MARINE LIGHT ATTACK SQUADRON (HMLA) UNIT CORE COMPETENCY

1. Background. Marine Aviation plays a crucial role in the MAGTF's ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while at the same time preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice and the ability to quickly and effectively plan for crises and/or contingency operations thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The UH-1N T&R Manual represents the collaborative effort of UH-1N Subject Matter Experts who designed training standards to maximize the full combat capabilities of the UH-1N and its crew. These standards, intrinsic in the core competency section, describe and define unit capabilities and requirements necessary to maintain like-squadron proficiency in core skills and combat leadership. Training events are based on specific requirements and performance standards to ensure aircrew maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure that trained aircrews remain ready, relevant, and fully capable of supporting the MAGTF commander.

2. HMLA Mission. Support the MAGTF Commander by providing offensive air support, utility support, armed escort and airborne supporting arms coordination, day or night under all weather conditions during expeditionary, joint or combined operations.

3. UH-1 Mission Essential Task List (METL)

- a. (UJTL TA 1.1.2) Conduct Shipboard Deck helicopter Landing Qualifications.
- b. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations
 - Maintain the capability to deploy and operate from advanced bases, expeditionary airfields, Forward Operating Bases (FOBs), and naval shipping.
 - Perform organizational maintenance on assigned aircraft.
- c. (UJTL TA 1.2.1) Conduct Air Assault Operations and Air Assault
 - Provided assault support transport of combat troops.
 - Provide support for casualty evacuation operations.
 - Provide armed escort for assault helicopters.
- d. (UJTL TA 1.2.3) Conduct Amphibious Assault and Raid Operations
 - Conduct assault support for maritime special operations.
 - Provide armed escort for airborne and surface forces.
- e. (UJTL TA 3.2.1) Conduct Fire Support
 - Provide fire support for forward and rear area forces against point and area targets.

- f. (UJTL TA 3.2.2) Conduct Close Air Support
 - Conduct escort of friendly ground forces.
 - Conduct Assault Support Escort.
- g. (UJTL TA 3.2.3) Conduct Interdiction Operations
 - Conduct armed reconnaissance.
- h. (UJTL TA 3.2.8) Conduct Air-to-Air Operations
 - Maintain self-defense capability from air-to-air threats.
- i. (UJTL TA 3.3) Coordinate Battlespace Maneuver and Integrate with Firepower
 - Conduct combined arms coordination and control operations.
 - Provide airborne command, control and coordination for assault support operations.
 - Conduct multi-sensor imagery, visual reconnaissance, and provide Battle Damage Assessment.
- j. (UJTL TA 6.2) Conduct Joint Personnel Recovery
 - Conduct Tactical Recovery of Aircraft and Personnel (TRAP) operations.
 - Augment local Search and Rescue (SAR) assets.
- k. (UJTL TA 6.3) Conduct Rear Area Security
 - Provide fire support and security for rear area forces.
- l. (UJTL TA 6.4) Conduct Noncombatant Evacuation
 - Provide Fire Support and escort for evacuation operations.
 - Provide support for evacuation operations.

4. Table of Organization. Refer to Table of Organization 8970 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength. As of this publication date, HMLA units are authorized:

HMLA SQUADRON
18 AH-1W, 9 UH-1N
Pilots: 44 AH-1W, 23 UH-1N
19 Crew Chiefs
17 Aerial Gunners/Observers

HMLA DETACHMENT
6 AH-1W & 3 UH-1N
Pilots: 14 AH-1W, 7 UH-1N
5 Crew Chiefs
5 Aerial Gunners/Observers

5. Core Capability. A core capable HMLA unit is able to sustain the number of sorties listed below on a daily basis during contingency/combat operations. The sortie rates are based on 1.5 hour average sortie duration and assumes ≥ 70 percent FMC aircraft and ≥ 90 percent T/O aircrew on hand. If unit FMC aircraft < 70 percent or T/O aircrew < 90 percent, core capability will be degraded by a like percentage. A core capable unit is able to accomplish all tasks designated in the unit METL from a main base, expeditionary base, or amphibious platform.

a. Core Capable Squadron. A Core Capable HMLA squadron is able to sustain 30 AH-1W and 15 UH-1N sorties per 24-hour period.

b. Core Capable Squadron (-). A Core Capable squadron (-) is able to sustain 21 AH-1W and 10 UH-1N sorties per 24-hour period.

c. Core Capable Detachment. A Core Capable detachment is able to sustain 10 AH-1W and 5 UH-1N sorties per 24-hour period.

6. METL/Core Skill Matrix. UH-1 core skills directly support the METL as follows:

| METL | UH-1 CORE SKILL | | | | | | | | |
|---|-----------------|-----|-----|-----|----|-----|------|-----|-----|
| | TERF | CAL | REC | SWD | EW | ESC | ANSQ | TAC | FAC |
| a. Conduct Shipboard Deck helicopter Landing Qualifications | | | | | | | X | | |
| b. Conduct Sea and Air Deployment Operations | | | | | | | X | | |
| c. Conduct Air Assault Operations and Air Assault | X | X | | X | X | X | X | X | |
| d. Conduct Amphibious Assault and Raid Operations | X | X | X | X | X | X | X | X | X |
| e. Conduct Fire Support | X | | X | X | X | | X | X | X |
| f. Conduct Close Air Support | X | | X | X | X | X | X | X | X |
| g. Conduct Interdiction Operations | X | | X | X | X | X | X | X | X |
| h. Conduct Air-to-Air Operations | X | | | X | X | X | | X | |
| i. Coordinate Battlespace Maneuver and Integrate with Firepower | X | | X | X | | | X | X | X |
| j. Conduct Joint Personnel Recovery | X | X | X | X | X | | X | X | X |
| k. Conduct Rear Area Security | X | X | X | X | X | X | X | X | X |
| l. Conduct Noncombatant Evacuation | X | X | X | X | X | X | X | X | X |

| METL | CORE PLUS | | | | |
|---|-----------|-----|------|-----|-----|
| | CQ | HIE | DACM | NBC | MAT |
| a. Conduct Shipboard Deck helicopter Landing Qualifications | X | | | | |
| b. Conduct Sea and Air Deployment Operations | X | | | | |
| c. Conduct Air Assault Operations and Air Assault | X | X | X | X | X |
| d. Conduct Amphibious Assault and Raid Operations | X | X | X | X | X |
| e. Conduct Fire Support | | | | X | |
| f. Conduct Close Air Support | | | | X | |
| g. Conduct Interdiction Operations | | | | X | |
| h. Conduct Air-to-Air Operations | | | X | X | |
| i. Coordinate Battlespace Mnv'r and Int w/Firepower | | | | X | |
| j. Conduct Joint Personnel Recovery | | X | | X | X |
| k. Conduct Rear Area Security | | X | X | X | X |
| l. Conduct Noncombatant Evacuation | X | | | | X |

7. UH-1N Core Model Minimum Requirements. Squadron core competency reflects the minimum level of competency a squadron must achieve to perform its core capability. UH-1 core competency is measured in terms of minimum Core Skill Proficiency (CSP) and minimum numbers of flight leaders per paragraphs a and b below:

a. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of UH-1 crews who are proficient in each core skill (Unit CSP). In order to be considered proficient in a core skill (individual CSP), a UH-1 crewmember must attain and maintain proficiency in core skill events, as delineated in paragraphs (1) and (2) below. The standard UH-1N crew consists of 2 Pilots, a Crew Chief, and an AO/AG.

* NOTE: CQ, HIE, DACM, NBC, and MAT are core plus skills. Proficiency in these skills is not required to obtain unit CSP. Below are UH-1 community recommended unit/individual CSP standards for CQ, HIE, DACM, NBC, and MAT.

| | UH-1N Unit CSP Requirements Squadron | | | |
|--------------------------|---|----------------|--------|-------|
| CORE SKILL *CORE PLUS | Pilots | Crew Chiefs | AO/AGs | Crews |
| TERF | 12 | 6 | 6 | 6 |
| CAL | 12 | 6 | 6 | 6 |
| REC | 12 | -- | -- | 6 |
| SWD | 10 | 5 | 5 | 5 |
| EW | 6 | 3 | 3 | 3 |
| ESC | 10 | 5 | 5 | 5 |
| ANSQ | 8 | 4 | 4 | 4 |
| TAC | 8 | 4 | 4 | 4 |
| FAC | 4 | -- | -- | 4 |
| *CQ | 4 | 2 | 2 | 2 |
| *HIE | 4 | 2 | 2 | 2 |
| *DACM | 6 | 3 | 3 | 3 |
| *NBC | 2 | 1 | 1 | 1 |
| *MAT | 4 | 2 | 2 | 2 |

| | UH-1N Unit CSP Requirements Squadron (-) | | | |
|--------------------------|---|----------------|--------|-------|
| CORE SKILL *CORE PLUS | Pilots | Crew Chiefs | AO/AGs | Crews |
| TERF | 8 | 4 | 4 | 4 |
| CAL | 8 | 4 | 4 | 4 |
| REC | 8 | -- | -- | 4 |
| SWD | 6 | 3 | 3 | 3 |
| EW | 4 | 2 | 2 | 2 |
| ESC | 6 | 3 | 3 | 3 |
| ANSQ | 4 | 2 | 2 | 2 |
| TAC | 4 | 2 | 2 | 2 |
| FAC | 2 | -- | -- | 2 |
| *CQ | 2 | 1 | 1 | 1 |
| *HIE | 2 | 1 | 1 | 1 |
| *DACM | 2 | 1 | 1 | 1 |
| *NBC | 2 | 1 | 1 | 1 |
| *MAT | 2 | 1 | 1 | 1 |

| | UH-1N Unit CSP Requirements Detachment | | | |
|--------------------------|---|----------------|--------|-------|
| CORE SKILL *CORE PLUS | Pilots | Crew Chiefs | AO/AGs | Crews |
| TERF | 6 | 3 | 3 | 3 |
| CAL | 6 | 3 | 3 | 3 |
| REC | 6 | -- | -- | 6 |
| SWD | 4 | 2 | 2 | 2 |
| EW | 4 | 2 | 2 | 2 |
| ESC | 4 | 2 | 2 | 2 |
| ANSQ | 4 | 2 | 2 | 2 |
| TAC | 4 | 2 | 2 | 2 |
| FAC | 1 | -- | -- | 1 |
| *CQ | 6 | 3 | 3 | 3 |
| *HIE | 2 | 1 | 1 | 1 |
| *DACM | 2 | 1 | 1 | 1 |
| *NBC | 2 | 1 | 1 | 1 |
| *MAT | 2 | 1 | 1 | 1 |

(1) Events Required to Attain Individual CSP. To initially attain CSP, a UH-1 crewmember must successfully complete all of the T&R events listed in the chart below for that core skill.

| UH-1N Pilot | TERF | CAL | REC | SWD | EW | ESC | ANSQ | TAC | FAC |
|---|------------|--------------------------|------------|---------------------------------|------------|-------------------|--------------------------|--|--------------------------|
| T&R event requirements to attain competency | 210 211 | 220 221 222 223 | 230 231 | 240 241 242 243 244 | 300 301 | 250 251 252 | 310 311 312 313 | 260 261 320 321 322 323 324 325 | 340 341 342 343 |

| UH-1N Pilot | CQ | HIE | DACM | NBC | MAT | TAC |
|---|--|---|---|-----|------------|-----|
| T&R event requirements to attain competency | 430 431 432 433 434 435 | 400 401 402 403 404 405 406 | 410 411 412 413 414 415 416 | 420 | 450 451 | 470 |

| UH-1N Crew Chief | TERF | CAL | SWD | ESC | ANSQ | TAC |
|---|------------|-------------------|--|-----|-------------------|-------------------|
| T&R event requirements to attain competency | 210 211 | 220 221 223 | 240 241 242 243 244 245 | 250 | 311 312 313 | 261 320 321 |

| UH-1N Crew Chief | CQ | HIE | DACM | NBC |
|---|---|---|---|-----|
| T&R event requirements to attain competency | 431 432 433 434 435 405 406 | 400 401 402 403 404 415 416 | 410 411 412 413 414 415 416 | 420 |

| UH-1N AO/AG | TERF | CAL | SWD | ESC | ANSQ | TAC |
|---|------------|-------------------|--|------------|-------------------|-------------------|
| T&R event requirements to attain competency | 210 211 | 220 221 223 | 240 241 242 243 244 245 | 250 322 | 311 312 313 | 261 320 321 |

| UH-1N AO/AG | CQ | HIE | DACM | NBC |
|---|---|---|---|-----|
| T&R event requirements to attain competency | 431 432 433 434 435 405 406 | 400 401 402 403 404 415 416 | 410 411 412 413 414 415 416 | 420 |

(2) Events Required to Maintain Individual CSP. To maintain CSP, an individual must maintain proficiency in all of the T&R events listed in the chart below for that core skill.

| UH-1N Pilot | TERF | CAL | REC | SWD | ESC | EW | ANSQ | TAC | FAC |
|--|------|------------|-----|------------|------------|-----|------------|-------------------|-------------------|
| T&R event requirements to maintain CSP | 211 | 222 223 | 230 | 243 244 | 251 252 | 301 | 312 313 | 321 324 325 | 341 342 343 |

| UH-1N Pilot | HIE | DACM | CQ | MAT | TAC |
|--|------------|--------------------------|---------------------------------|-----|-----|
| T&R event requirements to maintain CSP | 402 406 | 411 412 414 416 | 431 432 433 434 435 | 451 | 470 |

| UH-1N Crew Chief | TERF | NS | CAL | SWD | ANSQ | TAC | ESC |
|--|------|-----|------------|--|------|------------|-----|
| T&R event requirements to maintain CSP | 211 | 215 | 221 223 | 243 244 245 315 316 317 | 313 | 261 321 | 322 |

| UH-1N Crew Chief | HIE | DACM | CQ | NBC |
|--|-------------------|--|---------------------------------|-----|
| T&R event requirements to maintain CSP | 400 401 402 | 410 411 412 414 415 416 | 431 432 433 434 435 | 420 |

| UH-1N AO/AG | TERF | CAL | SWD | ANSQ | TAC |
|--|------|------------|--|------|-----|
| T&R event requirements to maintain CSP | 211 | 221 223 | 243 244 245 315 316 317 | 313 | 321 |

| UH-1N AO/AG | DACM | CQ | NBC |
|--|--|---------------------------------|-----|
| T&R event requirements to maintain CSP | 410 411 412 414 415 416 | 431 432 433 434 435 | 420 |

b. Minimum Combat Leader Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of UH-1 aircrew with the listed flight leadership designations.

| DESIGNATION | SQDN | SQDN (-) | DETACHMENT |
|-------------|------|----------|------------|
| UHC | 9 | 6 | 3 |
| SECTION LD | 5 | 3 | 2 |
| DIVISION LD | 2 | 1 | 1 |
| *FLIGHT LD | 4 | 3 | 1 |
| *AMC | 4 | 3 | 1 |

* Flight Lead and AMC Combat Leader requirements apply to HMLA squadron, not individual aircraft models (may be filled by UH or AH pilot).

8. Qualifications and Designations Tables. The tables below delineate T&R events required to be completed to attain initial qualifications and designations. All stage lectures, briefs, squadron training and

prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in individual NATOPS and APR/MPR jackets. Loss of proficiency in all qualification events of a core skill causes the associated qualification to be lost. Regaining a qualification requires completing all R coded syllabus events associated with that qualification.

| Qualification | Initial Event Qualification Requirements |
|------------------------|---|
| INST (RQRD-600) | IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer. |
| NATOPS (RQRD-601) | IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer. |
| FAM (RQRD-602) | Semi-annual EP simulator. |
| TERF (QUAL-610) | 210, 211 |
| NSQ HLL (QUAL-611) | 211, 221, 223 |
| NSQ LLL (QUAL-612) | 310, 311, 312, 313 |
| CQ (QUAL-615) | 430, 431, 433 |
| NVDCQ (QUAL-616) | 432, 434 |
| Night CQ (QUAL-617) | 435 |
| RWDACM (QUAL-618) | 411, 412, 413 |
| DACM (QUAL-619) | 414, 415, 416 |
| FAC(A) (QUAL-623) | 340, 341, 342, 343 |
| TAC(A) (QUAL-625) | 470 |

| Designation | Designation Requirements |
|-----------------------------|---|
| PQM (DESG-630) | Successful completion of NATOPS and instrument checks. |
| UHC (DESG-631) | Successful completion of the Core Skill Basic phase and 323, 324, 325 of the Core Skill Advanced phase. |
| FCP (DESG-632) | Upon completion of the DESG-632 evaluation flight, the commanding officer may designate the PUI a Functional Check Pilot. |
| SECTION LEAD (DESG-649) | 640, 641, 649 (eval). PUI will fly any of the previously flown Core Skill Basic or Core Skill Advanced sorties in conjunction with the 649 tracking code. |
| DIVISION LEAD (DESG-659) | 650, 651, 659 (eval). PUI will fly any of the previously flown Core Skill Basic or Core Skill Advanced sorties in conjunction with the 659 tracking code. |
| FLIGHT LEAD (DESG-669) | The PUI will fly any of the previously flown sorties in conjunction with the 669 tracking code. |
| AMC (DESG-679) | 659. Upon completion of the DESG-679 evaluation flight, the commanding officer may designate the PUI an Air Mission Commander. |

| | |
|-----------------------|---------------------------------|
| BIP (IDSG-680) | 500, 501, 502, 503, 504, 505 |
| TERFI (IDSG-681) | 510, 511 |
| WTO (IDSG-682) | 520, 521 |
| FAC(A)I (IDSG-683) | IAW the MAWTS-1 Course Catalog. |
| DACMI (IDSG-688) | |
| TAC(A)I (IDSG-689) | |
| NSFI (IDSG-694) | |
| NSSI (IDSG-695) | |
| NSI (IDSG-696) | |
| WTI (IDSG-699) | |

a. Instructor Requirements. A squadron should possess the following numbers of UH-1 aircrew with the listed instructor designations per MCO 3500.12C (WTPP).

| | Squadron | | |
|------------------------|----------|-------------|--------|
| INSTRUCTOR DESIGNATION | Pilots | Crew Chiefs | AO/AGs |
| BIP | 4 | -- | -- |
| TERFI | 4 | 3 | -- |
| WTO | 4 | -- | -- |
| NSI | 3 | 3 | -- |
| WTI | 3 | 3 | -- |
| FAC(A)I | 2 | -- | -- |
| TAC(A)I | 1 | -- | -- |
| DACMI | 2 | 2 | -- |
| C/C AGI | -- | 4 | -- |

| | Squadron (-) | | |
|------------------------|--------------|-------------|--------|
| INSTRUCTOR DESIGNATION | Pilots | Crew Chiefs | AO/AGs |
| BIP | 2 | -- | -- |
| TERFI | 2 | 2 | -- |
| WTO | 2 | -- | -- |
| NSI | 2 | 2 | -- |
| WTI | 2 | 2 | -- |
| FAC(A)I | 1 | -- | -- |
| TAC(A)I | 1 | -- | -- |
| DACMI | 1 | 1 | -- |
| C/C AGI | -- | 3 | -- |

| INSTRUCTOR DESIGNATION | Detachment | | |
|---------------------------|------------|----------------|--------|
| | Pilots | Crew Chiefs | AO/AGs |
| BIP | 2 | -- | -- |
| TERFI | 2 | 1 | -- |
| WTO | 2 | -- | -- |
| NSI | 1 | 1 | -- |
| WTI | 1 | 1 | -- |
| FAC(A)I | 1 | -- | -- |
| TAC(A)I | 0 | -- | -- |
| DACMI | 1 | 1 | -- |
| C/C AGI | -- | 1 | -- |

b. Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. It is a measure of time since the last event demanding that specific skill. Loss of currency does not affect a loss of CRP. For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for individual type mission profiles can be found in Chapter 4 of the T&R Program Manual.

c. Proficiency. A measure of achievement of a specific skill. Units shall emphasize proficiency training in core competencies. Refly factors establish the maximum time between demonstration of those particular skills. CRP is a measurement of "demonstrated proficiency." If an aircrew member exceeds the refly factor for a particular event, the individual loses CRP for that particular event. To regain proficiency, an individual shall complete the delinquent events with a proficient crewman/flight lead. If an entire unit loses proficiency, unit instructors shall regain proficiency by completing an event with an instructor from a like unit. If this is not feasible, the instructor shall regain proficiency by completing the event with another instructor. If a unit has only one instructor and cannot complete the event with an instructor from another unit, he shall regain proficiency with another aircraft commander or as designated by his commanding officer.

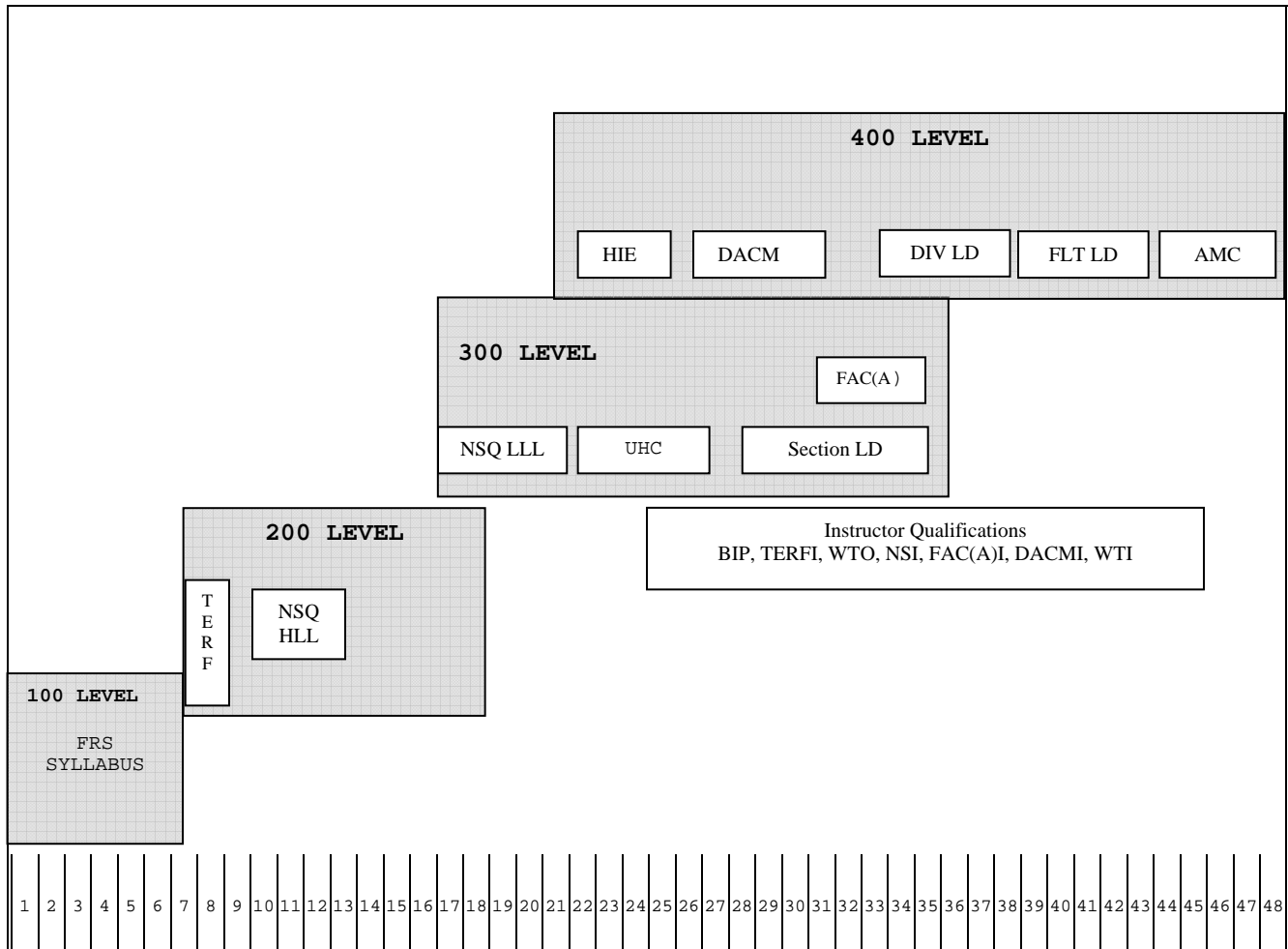


Figure 1-1.--UH-1 Notional Training Progression Model.

101. PROGRAMS OF INSTRUCTION (POI) FOR BASIC AND TRANSITION PILOT

| <u>WEEKS</u> | <u>COURSE/PHASE</u> | <u>ACTIVITY</u> |
|--------------|-------------------------------|-------------------|
| 1-2 | Interactive Courseware | Training Squadron |
| 3-20 | Core Skill Introduction Phase | Training Squadron |
| 21-31 | Core Skill Basic Phase | Tactical Squadron |
| 32-41 | Core Skill Advanced Phase | Tactical Squadron |
| 42-52 | Core Skill Plus Phase | Tactical Squadron |

102. POI FOR CONVERSION PILOT

| <u>WEEKS</u> | <u>COURSE/PHASE</u> | <u>ACTIVITY</u> |
|--------------|-------------------------------|-------------------|
| 1-2 | Interactive Courseware | Training Squadron |
| 3-10 | Core Skill Introduction Phase | Training Squadron |
| 11-17 | Core Skill Basic Phase | Tactical Squadron |
| 18-24 | Core Skill Advanced Phase | Tactical Squadron |
| 25-32 | Core Skill Plus Phase | Tactical Squadron |

103. POI FOR REFRESHER PILOT

| <u>WEEKS</u> | <u>COURSE/PHASE</u> | <u>ACTIVITY</u> |
|--------------|-------------------------------|-------------------|
| 1-2 | Interactive Courseware | Training Squadron |
| 3-9 | Core Skill Introduction Phase | Training Squadron |
| 10-16 | Core Skill Basic Phase | Tactical Squadron |
| 17-21 | Core Skill Advanced Phase | Tactical Squadron |
| 22-27 | Core Skill Plus Phase | Tactical Squadron |

104. POI FOR MODIFIED REFRESHER PILOT

| <u>WEEKS</u> | <u>COURSE/PHASE</u> | <u>ACTIVITY</u> |
|--------------|-------------------------------|-------------------|
| 1-2 | Interactive Courseware | Training Squadron |
| 3-6 | Core Skill Introduction Phase | Training Squadron |
| * | Core Skill Basic Phase | Tactical Squadron |
| * | Core Skill Advanced Phase | Tactical Squadron |
| * | Core Skill Plus Phase | Tactical Squadron |

* = *Modified Refresher stages are based upon the full Refresher syllabus modified at the discretion of the squadron commander.*

105. POI FOR FRS INSTRUCTOR PILOT

| <u>WEEKS</u> | <u>COURSE/PHASE</u> | <u>ACTIVITY</u> |
|--------------|----------------------------------|-------------------|
| 1-4 | Instructor Pilot Flight Training | Training Squadron |

110. GROUND/ACADEMIC TRAINING

1. Ground training requirements are listed separately for each phase of flight training. Training may be completed earlier in stage but should be completed by the appropriate sortie(s). The following describes the courses:

a. Interactive Courseware (ICW). This is a computer based training syllabus for Core Skill Introduction training. It consists of both self-paced lesson and instructor-presented phase lectures.

b. Academic Support Package (ASP). These are MAWTS-1 prepared classes available on CD-ROM. All material is contained on CDs, both classified (ASP-C) and unclassified (ASP-U). These can be either self-paced lessons or instructor-presented lectures. The classes listed are only the Generic, Common or Specific UH-1N classes. Other ASP classes may be useful as well.

c. Computer Based Training (CBT). These are software and/or hardware computer training aids designed to augment training for specific systems. Examples include the Naval Air Warfare Center programs for CDNU, as well as other programs developed by various sources such as the CDNU Device Trainer, TISP, PFPS/JMPS, EOTDA, and ALE-39 trainers/programs.

d. Squadron Developed Training. Squadron-developed curriculum used to enhance the above programs. Recognition training will be continuous.

120. FLIGHT/SIMULATOR/EVENT TRAINING FOR BASIC/TRANSITION PILOT1. Core Skill Introduction Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS | CRP |
|--|-----------------|------------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Basic Qualification | 0/0 | 0/0 | 25.0/0.0 |
| Familiarization | 11/4 | 18.5/6.0 | 11.0/2.75 |
| Instruments | 3/3 | 5.5/4.5 | 3.0/2.25 |
| Formation | 3/0 | 5.5/0.0 | 3.0./0.0 |
| Terrain Flight | 2/0 | 3.0/0.0 | 2.0/0.0 |
| Navigation | 3/0 | 4.5/0.0 | 3.0/0.0 |
| Specific Weapons Delivery | 1/1 | 1.5/1.5 | 1.0/0.75 |
| Confined Area Landings | 3/0 | 4.5/0.0 | 3.0/0.0 |
| External Weights | 1/0 | 1.5/0.0 | 1.0/0.0 |
| Core Skill Introduction Check | 1/1 | 2.0/1.5 | 1.5/0.75 |
| TOTAL FOR PHASE | 28/9 | 46.5/13.5 | 53.5/6.5 |
| COMBINED TOTALS | 37 | 60.0 | 60 |
| ACCUMULATION FOR BASIC/TRANSITION POI | 37 | 60.0 | 60 |

2. Core Skill Basic Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS | CRP |
|--|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Terrain Flight/Navigation | 2/0 | 4.0/0.0 | 2.0/0.0 |
| Night Vision Device | 1/1 | 0.0/1.5 | 0.5/0.5 |
| Confined Area Landings | 4/0 | 6.0/0.0 | 3.0/0.0 |
| Reconnaissance | 2/0 | 3.0/0.0 | 1.0/0.0 |
| Specific Weapons Delivery | 4/1 | 6.0/1.5 | 4.0/0.5 |
| Escort | 3/0 | 4.5/0.0 | 1.5/0.0 |
| Tactics | 2/0 | 3.0/0.0 | 2.0/0.0 |
| TOTAL FOR PHASE | 18/2 | 26.5/3.0 | 14.0/1.0 |
| COMBINED TOTALS | 20 | 29.5 | 15.0 |
| ACCUMULATION FOR BASIC/TRANSITION POI | 57 | 89.5 | 75.0 |

3. Core Skill Advanced Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS | CRP |
|--|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Electronic Warfare | 1/1 | 2.0/1.5 | 1.0/1.0 |
| Advanced Night Systems Qualification | 3/1 | 5.0/1.5 | 6.0/0.5 |
| Tactics | 6/0 | 9.0/0.0 | 9.0/0.0 |
| Forward Air Controller | 4/0 | 7.5/0.0 | 2.5/0.0 |
| TOTAL FOR PHASE | 14/2 | 23.5/3.0 | 18.5/1.5 |
| COMBINED TOTALS | 16 | 26.5 | 20.0 |
| ACCUMULATION FOR BASIC/TRANSITION POI | 73 | 116.0 | 95.0 |

4. Core Skill Plus Qualification Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS | CRP |
|---------------------------------------|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Helicopter Insertion/Extraction | 7/0 | 7.0/0.0 | 1.4/0.0 |
| Defensive Air Combat Maneuvering | 7/0 | 8.5/0.0 | 1.4/0.0 |
| Nuclear, Biological & Chemical | 1/0 | 1.0/0.0 | 0.3/0.0 |
| Carrier Qualification | 4/1 | 4.0/1.5 | 1.0/0.2 |
| Mountain Area Training | 2/0 | 2.0/0.0 | 0.4/0.0 |
| Tactics | 1/0 | 1.5/0.0 | 0.3/0.0 |
| TOTAL FOR PHASE | 22/1 | 24.0/1.5 | 4.8/0.2 |
| COMBINED TOTALS | 23 | 25.5 | 5.0 |
| TOTAL FOR BASIC/TRANSITION POI | 96 | 141.5 | 100.0 |

121. FLIGHT/SIMULATOR/EVENT TRAINING FOR CONVERSION PILOT1. Core Skill Introduction Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS |
|--|-----------------|------------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Familiarization | 8/4 | 13.5/6.0 |
| Instruments | 2/3 | 4.0/4.5 |
| Formation | 3/0 | 5.5/0.0 |
| Terrain Flight | 2/0 | 3.0/0.0 |
| Specific Weapons Delivery | 1/1 | 1.5/1.5 |
| Confined Area Landings | 3/0 | 4.5/0.0 |
| External Weights | 1/0 | 1.5/0.0 |
| Core Skill Introduction Check | 1/1 | 2.0/1.5 |
| TOTAL FOR PHASE | 21/9 | 35.5/13.5 |
| COMBINED TOTALS | 30 | 49.0 |
| ACCUMULATION FOR CONVERSION POI | 30 | 49.0 |

2. Core Skill Basic Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS |
|--|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Terrain Flight/Navigation | 2/0 | 4.0/0.0 |
| Night Vision Device | 1/1 | 0.0/1.5 |
| Confined Area Landings | 4/0 | 6.0/0.0 |
| Reconnaissance | 2/0 | 3.0/0.0 |
| Specific Weapons Delivery | 2/1 | 4.0/1.5 |
| Escort | 3/0 | 4.5/0.0 |
| Tactics | 2/0 | 3.0/0.0 |
| TOTAL FOR PHASE | 16/2 | 24.5/3.0 |
| COMBINED TOTALS | 18 | 27.5 |
| ACCUMULATION FOR CONVERSION POI | 48 | 76.5 |

3. Core Skill Advanced Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS |
|--|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Electronic Warfare | 1/1 | 2.0/1.5 |
| Advanced Night Systems Qualification | 3/1 | 5.0/1.5 |
| Tactics | 5/0 | 7.5/0.0 |
| Forward Air Controller | 4/0 | 7.5/0.0 |
| TOTAL FOR PHASE | 13/2 | 22.0/3.0 |
| COMBINED TOTALS | 15 | 25.0 |
| ACCUMULATION FOR CONVERSION POI | 63 | 101.5 |

4. Core Skill Plus Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS |
|----------------------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Helicopter Insertion/Extraction | 7/0 | 7.0/0.0 |
| Defensive Air Combat Maneuvering | 7/0 | 8.5/0.0 |
| Nuclear, Biological & Chemical | 1/0 | 1.0/0.0 |
| Carrier Qualification | 4/1 | 4.0/1.5 |
| Mountain Area Training | 2/0 | 2.0/0.0 |
| Tactics | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 22/1 | 24.0/1.5 |
| COMBINED TOTALS | 23 | 25.5 |
| TOTAL FOR CONVERSION POI | 86 | 127.0 |

122. FLIGHT/SIMULATOR/EVENT TRAINING FOR REFRESHER PILOT1. Core Skill Introduction Phase

| STAGE | NO. EVENTS | NO. HOURS |
|---------------------------------------|-----------------|------------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Familiarization | 4/3 | 7.0/4.5 |
| Instruments | 2/2 | 3.0/4.0 |
| Terrain Flight | 1/0 | 1.5/0.0 |
| Specific Weapons Delivery | 0/1 | 0.0/1.5 |
| Confined Area Landings | 2/0 | 3.0/0.0 |
| Core Skill Introduction Check | 1/1 | 2.0/1.5 |
| TOTAL FOR PHASE | 10/7 | 16.5/11.5 |
| COMBINED TOTALS | 17 | 28.0 |
| ACCUMULATION FOR REFRESHER POI | 17 | 28.0 |

2. Core Skill Basic Phase

| STAGE | NO. EVENTS | NO. HOURS |
|---------------------------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Terrain Flight | 1/0 | 2.0/0.0 |
| Confined Area Landings | 2/0 | 3.0/0.0 |
| Reconnaissance | 1/0 | 1.5/0.0 |
| Specific Weapons Delivery | 2/0 | 2.0/0.0 |
| Escort | 2/0 | 3.0/0.0 |
| TOTAL FOR PHASE | 8/0 | 11.5/0.0 |
| COMBINED TOTALS | 8 | 11.5 |
| ACCUMULATION FOR REFRESHER POI | 25 | 39.5 |

3. Core Skill Advanced Phase

| STAGE | NO. EVENTS | NO. HOURS |
|---------------------------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Electronic Warfare | 1/0 | 2.0/0.0 |
| Advanced Night Systems Qualification | 2/0 | 3.0/0.0 |
| Tactics | 3/0 | 4.5/0.0 |
| Forward Air Controller | 3/0 | 6.0/0.0 |
| TOTAL FOR PHASE | 9/0 | 15.5/0.0 |
| COMBINED TOTALS | 9 | 15.5 |
| ACCUMULATION FOR REFRESHER POI | 34 | 55.0 |

4. Core Skill Plus Phase

| STAGE | NO. EVENTS | NO. HOURS |
|----------------------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Helicopter Insertion/Extraction | 2/0 | 2.0/0.0 |
| Defensive Air Combat Maneuvering | 4/0 | 4.0/0.0 |
| Carrier Qualification | 5/0 | 5.0/0.0 |
| Mountain Area Training | 1/0 | 1.0/0.0 |
| Tactics | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 13/0 | 13.5/0.0 |
| COMBINED TOTALS | 13 | 13.5 |
| TOTAL FOR REFRESHER POI | 47 | 68.5 |

123. FLIGHT/SIMULATOR/EVENT TRAINING FOR MODIFIED REFRESHER PILOT1. Core Skill Introduction Phase

| STAGE | NO. EVENTS | NO. HOURS |
|---|------------|-----------------|
| | ACFT/SIM | ACFT/SIM |
| Familiarization | 4/2 | 7.0/3.0 |
| Instruments | 2/1 | 4.0/1.5 |
| Specific Weapons Delivery | 0/1 | 0.0/1.5 |
| Confined Area Landings | 1/0 | 1.5/0.0 |
| Core Skill Introduction Check | 1/1 | 2.0/1.5 |
| TOTAL FOR PHASE | 8/5 | 14.5/7.5 |
| COMBINED TOTALS | 13 | 22.0 |
| TOTAL FOR MODIFIED REFRESHER POI | 13 | 22.0 |

Note: The remaining Modified Refresher stages are based upon the Full Refresher syllabus modified at the discretion of the squadron commanding officer.

124. FLIGHT/SIMULATOR/EVENT TRAINING FOR INSTRUCTOR TRAINING

| STAGE | NO. EVENTS | NO. HOURS |
|--------------------------------------|-------------|-----------------|
| | ACFT/SIM | ACFT/SIM |
| Basic Instructor Pilot | 5/1 | 7.0/1.5 |
| Terrain Flight Instructor | 2/0 | 3.0/0.0 |
| Weapons Training Officer | 2/0 | 3.0/0.0 |
| TOTAL | 9/1 | 13.0/1.5 |
| COMBINED TOTALS | 10.0 | 14.5 |
| TOTAL FOR INSTRUCTOR TRAINING | 10.0 | 14.5 |

125. GRADUATE LEVEL COURSES. There are six graduate level courses that qualify instructors for specific portions of the T&R syllabus. Requirements for instructor certification are contained in the MAWTS-1 Course Catalog: FAC(A)I, DACMI, NSFI, NSSI, NSI, and WTI.

130. GROUND/FLIGHT/SIMULATOR EVENT PERFORMANCE REQUIREMENTS1. General

a. This Manual generalizes mission guidance to allow for local conditions and to allow this Manual to remain unclassified. DC AVN and CG MCCDC encourage squadrons to use the full range of tactics in the UH-1N NTTPs and adopt the latest developed and proven tactics.

b. Compliance with written flight description is mandatory for syllabus flight completion. Per T&R Program Manual, events may be listed as Aircraft preferred/Simulator optional - A/S, Simulator preferred/Aircraft optional - S/A, Aircraft only - A, or Simulator only - S. In the absence of a flight simulator, completion of a syllabus event is not required to complete that stage. Completion of those events should be accomplished as soon as practical upon simulator availability. Should the command desire, simulator events can be flown as actual flight events for T&R credit. CRM will be stressed and evaluated throughout each stage.

c. All flights shall terminate with a comprehensive debrief with emphasis on aircrew performance using all evaluation techniques.

d. Initial syllabus events not annotated with an N or NS shall be conducted during daylight hours. Pilots shall fly events annotated with an N (Night) or NS (Night Systems) at least 30 minutes after official sunset. Pilots may fly events annotated with (NS) at night with NVDs or by day.

e. To the greatest extent possible, an annual E.P. review (RQRD-602) will be conducted in the same month as the annual NATOPS check (RQRD-601). In lieu of a UH-1N simulator, the SFAM-280 may be conducted verbally by a Instructor Pilot (IP) with the PUI in the aircraft cockpit.

f. The visual system must be incorporated with the simulator for completion of a syllabus event (except for instrument flights which can be flown without the visual system).

g. Networked Simulation. Linked simulator events require an approved tactical environment simulation and at least one additional, networked, man-in-the-loop simulator to meet the training objectives. A moving model controlled from the operator station does not satisfy the man-in-the-loop requirement.

2. Squadron Syllabus Assignment

a. Basic and Transition Syllabus. Basic and Transition pilots will be assigned to fly the entire syllabus. Conversion, Refresher, and Modified Refresher will fly the sorties designated by a C, R and M respectively in the event description.

b. Refresher Syllabus. A Refresher syllabus is provided for personnel who have not flown their type aircraft for over 730 days. The Refresher syllabus is predicated on the experience of the Refresher pilot. A pilot in the Refresher syllabus should fly all R coded events. However, a Refresher pilot need not fly every event within a stage of training to be regualified in that stage. The commanding officer may tailor the Refresher syllabus to fit the experience of the Refresher pilot per the Aviation T&R Program Manual. When the R coded events within a stage of training are complete, the pilot shall be credited with the CRP for the entire stage of training. This assumes that the Refresher has had previous proficiency in that stage of training. If the Refresher pilot has no previous proficiency in a stage or particular event, then the Refresher should fly the entire stage or all events not previously flown. The Refresher syllabus applies only up to the stage achieved during the prior tour. After that the pilot will complete the entire remaining syllabus.

c. Modified Refresher Syllabus. A Modified Refresher syllabus is provided for personnel who have not flown their type aircraft for 486-730 days. Following the FRS, the Refresher shall be assigned to the tactical squadron Refresher syllabus. However, the commanding officer may tailor the Refresher syllabus to fit the experience of the Refresher pilot per the Aviation T&R Program Manual.

3. Aircrew Evaluation Flights. All pilots shall have a NATOPS evaluation form completed annually upon completion of the following:

a. NATOPS Check (CSIX-181, RQRD-601). A designated NATOPS instructor or an assistant NATOPS instructor shall evaluate RQRD-601.

b. Instrument Check (RQRD-600). A member of the squadron instrument board shall evaluate RQRD-600.

4. Aircrew Training Forms (ATFs)

a. An ATF is required for any event initially completed by a Basic, Transition, Conversion, or Refresher pilot or as recommended by the squadron Standardization Board.

b. If the commanding officer has waived/deferred a syllabus sortie, the squadron training officer shall place a waiver/deferral letter in section 3 of the APR.

c. MAWTS-1 will maintain an ATF database that establishes minimum requirements for each syllabus event. Access for individual units will be possible at the MAWTS-1 website.

5. Instructor Requirements

a. The minimum instructor requirements are listed in the crew requirements section of each event.

b. For simulator events, the requirement for a squadron IP in addition to the Certified Simulator Instructor is at the discretion of the squadron. When practical, a copilot should be scheduled with the PUI for Crew Resource Management (CRM) proficiency.

c. To instruct any sortie the minimum requirements are Basic IP and "complete" in that stage.

6. Event Completion. Compliance with the written event description is mandatory for syllabus event completion. Times indicated for each event are only recommendations.

7. Sequence. Training should be accomplished by flying events within a stage in sequence and stages in sequence when practical.

8. Definitions

a. Discuss

(1) The IP shall discuss a procedure or maneuver during the brief, in-flight, or debrief.

(2) The PUI is responsible for knowledge of the applicable procedures prior to the briefing.

b. Demonstrate

(1) The IP performs the maneuver with accompanying description.

(2) The PUI observes the maneuver and is responsible for the knowledge of the procedures prior to the flight.

c. Introduce

(1) At his option, the IP may perform the maneuver with an accompanying description, or he may coach the PUI through the maneuver without demonstration.

(2) The PUI shall perform the maneuver with coaching as necessary and is responsible for knowledge of the procedures prior to the flight.

d. Review

(1) The IP observes and grades the maneuver without coaching the PUI. An airborne critique of the PUI's performance is at the option of the IP.

(2) The PUI is expected to perform the maneuver without coaching and devoid of procedural error at a level acceptable to warrant progress into the next stage of training.

131. CORE SKILL INTRODUCTION PHASE

1. Purpose. To develop a Core Skill Introduction copilot. At the completion of this phase the PUI will be designated Pilot Qualified in Model (PQM), NATOPS qualified and rate the 7563 MOS as specified in the CSIX-181.

2. General. Completion of this phase meets the requirements for the PUI to be designated a PQM. At the discretion of the squadron commanding officer a letter designating the PUI as PQM shall be placed in the NATOPS jacket, APR and a tracking code of RQRD-601 shall be logged. The PUI will have gained proficiency in FAM, INST, FORM, TERF, NAV, CAL and SWD. NVDs will be utilized during the FAM, FORM, TERF, NAV and CAL stages.

3. Familiarization (FAM)

a. Purpose. To develop familiarity with aircraft flight characteristics, limitations, and emergency procedures during day and night operations. To develop proficiency in all maneuvers and to instill basic CRM procedures throughout the familiarization stage.

b. General

(1) PUI must demonstrate proficiency with all shore based FAM procedures to include normal/emergency procedures and basic aircraft maneuvers. Additionally, the PUI must display a thorough knowledge of limitations and flight characteristics. During all stages, the PUI shall complete a weight and balance form before each sortie and present it to the IP for verification.

(2) To facilitate training, CC/CCUI/QO may be included on any FAM stage flights, as required.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Interactive Courseware, preflight and postflight, flight procedures, maneuver description, emergency procedures, course rules, familiarization stage lecture, open and closed-book NATOPS exams.

e. Flight and Simulator Event Training. (11 Sorties, 18.5 Hours/4 Simulator Periods, 6.0 Hours).

FAM-00

0.0

C R E 1 UH-1N STATIC

Goal. Familiarize the PUI with preflight, cockpit interior inspection, postflight inspection, weight and balance computations and emergency egress procedures.

Requirement

(1) Discuss maintenance department organization and the ADB.

(2) Demonstrate preflight, cockpit interior inspection, postflight inspection, weight and balance computations and emergency egress procedures.

Performance Standards. N/A.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI.

FAM-000

0.0

C R E 1 UH-1N STATIC

Goal. PUI will demonstrate the preflight, interior cockpit inspection, postflight, weight and balance and emergency egress.

Requirement

(1) Discuss CRM.

(2) Introduce blind cockpit checks, preflight, interior inspection, postflight inspection, weight and balance computations and emergency egress procedures.

Performance Standards. Without input from the IP, PUI completes an accurate weight and balance computation, screens and understands the function of the ADB, and conducts an aircraft preflight IAW UH-1N NATOPS and Maneuver Description Guide (MDG).

Prerequisite. ICW complete.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI.

SFAM-100

1.5

C R M E 1 UH-1N S

Goal. Familiarization with NATOPS checklists, flight procedures, and simulator introduction.

Requirement

(1) Discuss: autorotative characteristics, dual/single engine failures, and basic CDNU procedures.

(2) Demonstrate/introduce: NATOPS checklists and normal flight procedures including normal start, subsequent start, starting emergencies, ground emergency procedures, home field pattern environment familiarization, normal and steep approach, single/dual engine failures at altitude, autorotations, shutdown procedures, and engine wash procedures. PUI shall perform a blindfold cockpit check.

Performance Standards. PUI shall demonstrate familiarity with checklists, start procedures and emergency procedures.

Prerequisite. FAM-000.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

FAM-101

1.5 C E 1 UH-1N A

Goal. UH-1N introduction. PUI conducts a normal start, normal in-flight procedures and emergency procedures.

Requirement

(1) PUI shall perform a thorough preflight, cockpit inspection, and postflight with accompanying description.

(2) Brief/discuss: engine fire on start/shutdown (hotstart), normal pattern procedures, engine shutdown in flight, engine restart, engine to transmission driveshaft failure, engine driven fuel pump failure, hot refueling, fire detection/extinguisher system, emergency exits, first-aid kits, minimum crew requirements, prohibited maneuvers, and prohibited operations.

(3) Introduce: engine start, hover power check, takeoff to a hover, takeoff from a hover, normal takeoff, low work, basic air work, normal approach, landing from a hover, no hover takeoff/landing and shutdown.

(4) Demonstrate autorotations (hover, taxi, straight-in, 90 and 180 degree) and simulated single/dual engine failures.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. SFAM-100.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC/CCUI).

FAM-102

1.5 E 1 UH-1N A

Goal. Demonstrate/introduce takeoff and landing variations.

Requirement

(1) Brief/discuss: land as soon as possible, land as soon as practical, precautionary landing, emergency radio calls, chip lights, fires (engine compartment, fuselage, electrical), smoke elimination, engine limitations, transmission limitations, autorotation airspeeds, torque limitations, Nf limitations, and Nr limitations.

(2) Introduce simulated single/dual engine failures and autorotations (hover, taxi, straight-in & 90 degree).

(3) Review: engine start, hover power check, takeoff to a hover, takeoff from a hover, normal takeoff, low work, basic

air work, normal approach, landing from a hover, no hover takeoff/landing, and shutdown.

(4) Demonstrate: autorotations at minimum rate of descent and maximum glide airspeed, max power takeoff, steep approach, sliding takeoff/landing and high angle of bank maneuvering. PUI to complete a minimum of 5 autorotations.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. FAM-101.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC/CCUI).

FAM-103

1.5 C E 1 UH-1N A

Goal. Introduce approach and landing variations.

Requirement

(1) Brief/discuss: caution/warning lights, single instrument indications, electrical system, oil starvation, synchronized elevator failure, airspeed limitations, height/velocity diagram, and VNE chart.

(2) Introduce: autorotations at minimum rate of descent and maximum glide airspeed, 180 degree autorotations, max power takeoff, steep approach, and sliding takeoff/landing.

(3) Review: engine start, normal takeoff, normal approach, no hover takeoff/landing, crosswind takeoff/landing, hover power check, autorotations (hover, taxi, straight-in, 90 degree), simulated single/dual engine failures and shutdown. PUI to complete a minimum of 5 autorotations.

(4) Demonstrate single engine approach/landing, SCAS off flight/landing, and manual fuel operation.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. FAM-102.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC/CCUI).

FAM-104

1.5 C E 1 UH-1N A

Goal. Review previous work and introduce alternate approaches and landings. Preflight inspection to be evaluated per NATOPS.

Requirement

(1) Brief and discuss: generator failure, inverter failures, battery thermal runaway, SCAS malfunctions, Nf governor failures, hydraulics system, fuel system, auxiliary fuel system, fuel servicing, tail rotor malfunctions, applications of high angle of bank maneuvering, related effects of high density altitude and G-loading.

(2) Introduce SCAS off flight/landing, high angle of bank maneuvering, and manual fuel operation.

(3) Review: start/shutdown, normal approach, steep approach, autorotations (including 180 degree autorotations and hovering/taxiing), sliding landing/takeoff, no hover takeoffs/landings, simulated single/dual engine failures, takeoff from a hover and maximum power takeoff.

(4) Demonstrate: high speed/low level approach, quick stop, low level autorotation and low rotor RPM hover.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. FAM-103.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC/CCUI).

SFAM-105

1.5 C R M E 1 UH-1N S

Goal. Review aircraft ground and flight emergencies and NATOPS emergency procedures emphasizing those emergencies that cannot be duplicated in the aircraft.

Requirement. Introduction to aircraft emergencies and applicable NATOPS procedures.

Performance Standards. Per UH-1N NATOPS.

Prerequisite. FAM-104.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

FAM-106

2.0 C R M E 1 UH-1N A

Goal. Review previously introduced maneuvers and procedures.

Requirement

(1) Brief and discuss: drive train system (engine, transmission, C-box, main rotor, 90/42 degree gear boxes, tail rotor), mast bumping, vortex ring state, and collective bounce.

(2) Introduce: simulated tail rotor malfunctions, high speed/low level approach, quick stop, low level autorotation, and APU start.

(3) Review: normal approach, steep approach, no hover landings, autorotations (including hovering/taxiing), SCAS off flight/landing, simulated single/dual engine failures, maximum power takeoff, and manual fuel operation.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. FAM-105.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC/CCUI).

FAM-107

2.0

C E 1 UH-1N A

Goal. Review: all takeoff, approach, landing procedures and simulated emergencies from the left seat. Introduce internal weight (INTWT) and integration of crew chief.

Requirement

(1) Brief and discuss: ditching, inadvertent IMC, compressor stall, blade stall, unusual vibrations, dynamic rollover, RPM warning system, simulated emergencies, hydraulic system malfunctions, communication equipment, hot/cold weather and high altitude operations, weight and balance to include cabin loading and effect of fuel burn on Center of Gravity. INTWT 1,000 lbs.

(2) Review: low work, maximum power takeoff, normal approach, steep approach, sliding takeoff/landing, no hover takeoff/landing, autorotations, high speed/low level approach, quick stop, tail rotor malfunctions, simulated single/dual engine failures and high angle of bank maneuvering.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. FAM-106.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC/CCUI).

FAM-108

2.0

E 1 UH-1N A

Goal. Review takeoff, approach, and landing procedures.

Requirement

(1) Brief and discuss: hydraulic system malfunction, communication equipment, hot weather operations, max gross

weight operations, and high altitude operations. Minimum aircraft takeoff gross weight 10,000 lbs.

(2) Review: normal approach, steep approach, sliding takeoff and landing, no hover takeoff and landing, quick stop, high speed low level approach, autorotations, simulated engine failures, SCAS off flight, max power takeoff, and manual fuel operation.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. FAM-106.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. IP/PUI (CC/CCUI).

SFAM-111

1.5 C R E 1 UH-1N S N

Goal. Introduce unaided night familiarization in the simulator.

Requirement

(1) Discuss electrical malfunctions, single/dual engine failures, and aircraft lighting.

(2) First half of this sortie will be a day/night EP review. Second half will introduce, at a lit airfield, night home field pattern familiarization, normal and steep approach, sliding takeoff & landing, no hover takeoff & landing, maximum power takeoff, manual fuel operation, SCAS off flight & landing, autorotations, and simulated single/dual engine failures.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. FAM-106.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

FAM-112

1.5 E 1 UH-1N A N

Goal. Unaided night introduction.

Requirement

(1) Brief and discuss: electrical malfunctions, single/dual engine failures, aircraft lighting, aircrew coordination, caution and warning lights, fires, single instrument indications, inadvertent IMC, and lost plane procedures.

(2) Introduce, at a lit airfield: normal approach, steep

approach, sliding takeoff and landing, no hover takeoff and landing, maximum power takeoff, manual fuel operation, SCAS off flight/landing, tail rotor malfunctions, autorotations, and simulated single/dual engine failures. PUI to complete a minimum of 5 autorotations.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. SFAM-111.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC/CCUI).

FAM-113

1.5 C R M E 1 UH-1N A N

Goal. Introduction to unlit field operations.

Requirement

(1) Brief and discuss all previously introduced emergency procedures.

(2) Introduce landing to an unlit area.

(3) Review, at lit airfield: basic air work, normal approach, steep approach, low work, sliding takeoff and landing, no hover takeoff and landings, autorotations, simulated engine failure (single/dual), SCAS off flight and landing, manual fuel operation, and tail rotor malfunctions.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. FAM-112.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC/CCUI).

SFAM-114

1.5 C E 1 UH-1N S NS

Goal. Introduce NVD techniques during HLL.

Requirement

(1) Discuss: NVD preflight/adjustment/focusing, NVD eye lane, use of NVDs, NVD emergencies/malfunctions, aircraft emergencies while on NVDs, and CRM. Discuss NVD HUD operation and utilize the HUD.

(2) Introduce: low work, takeoff and landing at an unlit field or remote landing site on NVDs. Integrate the NVD HUD on all maneuvers. Review CDNU functions.

Performance Standards. Per UH-1N NATOPS, MDG and MAWTS-1 NVD Manual.

Prerequisite. NITE Lab.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

FAM-115

1.5 C R M E 1 UH-1N A NS

Goal. Introduce NVD techniques during HLL.

Requirement

(1) Brief and discuss: Light Level Planning Calendar Computer Program, cockpit lighting, external lighting, NVD scan, HLL, LLL, meteorological effects, and cultural lighting.

(2) Demonstrate/introduce: takeoff to a hover, takeoff from a hover, normal takeoff, low work, basic airwork, normal approach, landing from a hover, and autorotations. PUI to complete a minimum of 5 autorotations.

(3) Review SFAM-114 in the aircraft.

Performance Standards. Per UH-1N NATOPS, MDG and MAWTS-1 NVD Manual.

Prerequisite. SFAM-114.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSFPI/PUI/CC (CCUI).

FAM-118

2.0 C R M E 1 UH-1N A

Goal. FAM stage evaluation.

Requirement. PUI shall safely perform all familiarization stage maneuvers and emergency procedures.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. FAM-108.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC/CCUI).

4. Instruments (INST)

a. Purpose. To develop proficiency in actual/simulated Instrument Meteorological Conditions (IMC).

b. General. Instrument sorties should be conducted under both day and night conditions. All instrument sorties, whether day or night, should be

conducted under instrument conditions for the PUI, using an instrument hood when necessary. On flights flown under simulated instrument conditions, except at night, the PUI shall be hooded and the crew shall include a crew chief or qualified observer. A minimum of 1 flight should be conducted at night. Refresher pilots will complete their annual instrument check (RQRD-600) in conjunction with INST-125. Therefore, they will require their semi-annual minimums and Instrument Ground School (IGS) prior to INST-125. CC/QO optional for any INST stage flight not requiring a hood.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. IGS, computer flight planning.

e. Flight and Simulator Event Training. (3 Sorties, 5.5 Hours/3 Simulator Periods, 4.5 Hours).

SINST-120 1.5 C E 1 UH-1N S (N)

Goal. Introduce basic instrument flight.

Requirement

(1) Brief and discuss instrument checklist, vertigo, functions of primary/secondary instruments, electrical malfunctions, SCAS malfunctions, and instrument malfunctions.

(2) Introduce instrument checklist, Instrument Takeoff (ITO), level flight, level speed change, standard rate climbs/descents, standard/half standard rate turn patterns, oscar pattern, recovery from unusual attitudes, instrument autorotation and partial panel.

Performance Standards. Per UH-1N NATOPS, MDG and NATOPS Instrument Flight Manual (NIFM).

Prerequisite. FAM-106.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

SINST-121 1.5 C,R,M E 1 UH-1N S (N)

Goal. Introduce instrument navigation.

Requirement

(1) Brief and discuss: CDI, station passage, IAF, FAF, DME, holding entry/procedures, loss of TACAN during approach, time distance checks, station passage, missed approach, MDA, 40 degree lock-off, Height Above Airport (HAA), voice reports.

(2) Introduce: Standard Instrument Departure (SID), TACAN/GPS tracking, radial change, arcing, holding, approach and missed approach, and point-to-point navigation.

(3) Review Instrument checklist, ITO, and partial panel.

Performance Standards. Per UH-1N NATOPS, MDG and NIFM.

Prerequisite. SINST-120.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

SINST-122

1.5 C, R E 1 UH-1N S (N)

Goal. Introduce radar approach procedures.

Requirement

(1) Discuss: ground controlled approach (PAR and ASR), navigational instrument failure, transition from VMC to IMC, lost communication, HAA, Height Above Threshold (HAT), no gyro approach, visual and contact approach.

(2) Introduce: ASR, PAR and no gyro PAR procedures. Emphasize voice communications and navigational instrument failure procedures and transition from VMC to IMC.

(3) Review: filing/clearance procedures, SIDs, instrument autos and ITOs. PUI will perform a minimum of 3 precision approaches.

Performance Standards. Per UH-1N NATOPS, MDG and NIFM.

Prerequisite. SINST-121.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

INST-123

1.5 E 1 UH-1N A (N)

Goal. Review basic instrument, TACAN and radar approach procedures.

Requirement

(1) Discuss: criteria for alternate, filing below minimums, fuel consumption, true airspeed, ground speed, minimum fuel, emergency fuel and holding entry/procedures.

(2) Review: TACAN tracking, radial change, arcing, holding, instrument approach, missed approach, point-to-point navigation and GCA procedures. Introduce UHF DF capability. PUI will perform a minimum of 2 approaches.

Performance Standards. Per UH-1N NATOPS, MDG and Instrument Flight Manual.

Prerequisite. SINST-122.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC or QO).

INST-124

2.0 C,R,M E 1 UH-1N A (N)

Goal. Review TACAN and GCA procedures.

Requirement. Plan, file, and fly an instrument flight. Emphasize enroute procedures and communication/navigation equipment failure. Terminate with an instrument approach.

Performance Standards. Per UH-1N NATOPS, MDG and Instrument Flight Manual.

Prerequisite. SINST-122.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI (CC or QO).

INST-125

2.0 C,R,M E 1 UH-1N A/S (N)

Goal. Conduct instrument evaluation.

Requirement. Conduct PUI jacket review and ensure all ATFs are in the PUI APR.

(1) Discuss: instrument flight publications, airspace classification, cloud clearances and visibility requirements, inflight filing procedures, annual and semi-annual instrument and approach minimums, DD-175, weather briefing requirements and spatial disorientation.

(2) Review: weather planning/filing criteria, flight planning, instrument checklist, ITO and climb-out, SID, IFF/SIF operations, TACAN procedures, GCA procedures, unusual attitude, partial panel, airway navigation, voice reports, lost comm procedures, and instrument autorotation. PUI will perform a minimum of 1 approach.

(3) PUI plan and execute an instrument evaluation flight per OPNAV 3710. This sortie can fulfill requirements for annual instrument check if required and minimums have been met. Evaluate all phase maneuvers and emergencies.

Performance Standards. Per UH-1N NATOPS, MDG and Instrument Flight Manual.

Prerequisite. SINST-120 through INST-124.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP(IFBM)/PUI (CC or QO).

5. Formation (FORM)

a. Purpose. To introduce formation flight and develop proficiency in parade and tactical formation maneuvers.

b. General. At the completion of this stage, the PUI will be proficient at formation takeoffs and landings, rendezvous, parade, cruise, combat cruise, lead change, and all formation maneuvers listed in the UH-1N NATOPS and MDG.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Formation stage lecture, UH-1N NTTP and ICW.

e. Flight and Simulator Event Training. (3 Sorties, 5.5 Hours).

FORM-130 2.0 C E 2 UH-1N A

Goal. Introduce formation flight.

Requirement

(1) Discuss: FORM maneuvers, visual signals, lead change, inadvertent IMC, and crew coordination.

(2) Demonstrate/introduce: section takeoff, parade and cruise formations, breakup and rendezvous, crossovers, climbs and descents, section landings, parade, cruise turns, change lead and repeat.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisite. FAM 106.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI/CC (CCUI or QO).

FORM-131 1.5 C E 2 UH-1N A

Goal. Introduce tactical formations.

Requirement

(1) Discuss: combat cruise, combat spread, lookout doctrine, wingman awareness/responsibilities, aircrew coordination, use of cover in turns, use of radius of turn, and tactical formation maneuvers.

(2) Demonstrate/introduce: combat cruise, combat spread, TAC turns, break turns, split turns, in-place turns, digs and pinches, cross turns and center turns. Demonstrate ordnance delivery patterns and section CALS.

(3) Review formation maneuvers introduced in FORM-130.

Performance Standards. Per UH-1N NATOPS and MDG.

Prerequisites. FORM-130.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI/CC (CCUI or QO).

FORM-132

2.0

C E 2 UH-1N A NS

Goal. NVD FORM introduction.

Requirement

(1) Discuss NVD formation flight, aircraft lighting, and visual cues.

(2) Introduce formation flight using NVDs. Review formation maneuvers introduced in previous formation sorties.

Performance Standards. Per UH-1N NATOPS, MDG and MAWTS-1 NVD Manual.

Prerequisite. FAM-115, FORM-131.

Ordinance. N/A.

Crew. NSFII/PUI/CC (CCUI or QO).

6. Terrain Flight (TERF)

a. Purpose. To introduce low level, contour and NOE modes of TERF flight and develop proficiency in the application of TERF procedures.

b. General. PUI will demonstrate an understanding of the TERF modes (low level, contour, and NOE) and proficiency in low level, contour, and NOE flight maneuvers. PUI will also demonstrate basic knowledge of current threat systems and their applicability to TERF. PUI will compute weight and balance prior to each sortie. PUI will also demonstrate a solid knowledge of GPS/Doppler operations and use of the MDL if installed.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. TERF stage lecture, NTPP, MDG and ICW.

e. Flight and Simulator Event Training. (2 Sorties, 3.0 Hours).

TERF-140

1.5

C,R E 1 UH-1N A

Goal. Introduce TERF techniques.

Requirement

(1) Discuss: TERF modes of flight, performance checks, masking/unmasking, turns about the nose/tail, engine failure HIGE/HOGE, loss of tail rotor authority, low G maneuvers, low altitude hazards, mast bumping and crew coordination.

(2) Demonstrate the TERF brief.

(3) Demonstrate/introduce: low level, contour and NOE modes of flight to include performance checks, masking and unmasking, NOE quick stops, turns, bunts, and rolls.

Performance Standards. Per UH-1N NATOPS, NTTP, and MDG.

Prerequisite. FAM-106.

Ordinance. N/A.

External Syllabus Support. Authorized TERF area.

Crew. TERFI/PUI/CC (CCUI or QO).

TERF-142

1.5

C E 1 UH-1N A NS

Goal. Introduce TERF techniques using NVDs.

Requirement

(1) Discuss: NVD TERF techniques, night vision techniques, terrain reflectivity, night visual cues, meteorological considerations, NVD environmental considerations, aircraft preparation, and dark adaptation.

(2) Review all TERF-140 maneuvers using NVDs.

Performance Standards. Per UH-1N NATOPS, MAWTS-1 NVD Manual and MDG.

Prerequisite. NITE Lab, FAM-115 and TERF-140.

Ordinance. N/A.

External Syllabus Support. Authorized TERF area.

Crew. NSFPI/PUI/CC (CCUI or QO).

7. Navigation (NAV)

a. Purpose. To develop the ability to conduct day/night navigation.

b. General. PUI must demonstrate the ability to navigate preplanned routes and identify positions using charts/maps at altitude and in the TERF environment. Mission Planning System (MPS) and available navigation systems shall be utilized to the greatest extent possible.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. NAV stage lecture, ICW and UH-1N NTTP.

e. Flight and Simulator Event Training. (3 Sorties, 4.5 Hours).

NAV-150

1.5

E 1 UH-1N A

Goal. Introduce low level and contour TERF navigation.

Requirement

(1) Discuss: low level navigation, contour navigation, route selection, checkpoint selection, and Joint Operations Graphic (JOG).

(2) Introduce: navigation in the low level and contour mode to at least 5 predetermined contour terrain features using a 1:250,000 and 1:50,000 scale map. Navigate using terrain features rather than manmade objects. Stress checkpoint selection and use of prominent terrain features. Remain oriented within 500 meters.

Performance Standards. Per the UH-1N NTTP and MDG. PUI must arrive at each checkpoint within 1 minute of the planned time. Emphasize crew coordination and standard verbal descriptions of terrain and hazards. PUI will demonstrate proficiency in GPS/Doppler operations.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. Authorized TERF area.

Crew. BIP/PUI (CC/CCUI or QO).

NAV-151

1.5 E 2 UH-1N A

Goal. Introduce NOE TERF navigation.

Requirement

(1) Discuss: NOE navigation, map preparation, distance estimation, terrain analysis, GPS systems, and application of lost procedures.

(2) PUI will perform a map study using a 1:50,000 map and navigate a predetermined route with a minimum of 5 checkpoints in the NOE mode.

Performance Standards. Per UH-1N NATOPS, MDG. PUI to remain oriented within 500 meters. PUI must arrive at each checkpoint within 1 minute of the planned time. Successfully load route utilizing MDL (if available).

Prerequisite. TERF-140.

Ordinance. N/A.

External Syllabus Support. Authorized TERF Area.

Crew. TERFI/PUI/CC (CCUI or QO).

NAV-152

1.5 E 1 UH-1N A NS

Goal. Introduce navigation on NVDs using visual navigation techniques and GPS if available.

Requirement

(1) Brief and discuss: night navigation considerations, electrical failures, lost plane procedures, boundaries, time distance checks, distance estimation, map legend information, map preparation, NATOPS standard data charts, and available GPS systems. Use MPS for route computation when available.

(2) Plan and navigate at 500 to 1,000 feet AGL to at least 10 preplanned checkpoints using 1:250,000 scale JOG (Air) maps. The first 5 checkpoints should be found without the use of any navaid other than a map; a navaid, such as the GPS can be used to find the remaining checkpoints. Checkpoints should have a minimum of 10 NM separation.

Performance Standards. Per the UH-1N NTTP and MDG. PUI to remain oriented within 1 NM. Successfully load route utilizing MDL (if available).

Prerequisite. FAM-115, NAV-150.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSFII/PUI/CC (CCUI or QO).

8. Specific Weapons Delivery (SWD)

a. Purpose. To introduce SWD. IP will stress error analysis.

b. General

(1) At the completion of this stage, PUI will demonstrate proficiency in all ordnance delivery techniques.

(2) PUI shall develop the ability to deliver ordnance. Use both crew served and fixed forward delivery.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. SWD stage lecture and ICW on BCWD, UH-1N NTTP.

e. Flight and Simulator Event Training. (1 Sortie, 1.5 Hours/1 Simulator Period, 1.5 Hours).

| | | |
|-----------------|------------|--------------------------|
| <u>SSWD-160</u> | <u>1.5</u> | <u>C,R,M E 1 UH-1N S</u> |
|-----------------|------------|--------------------------|

Goal. Conduct BCWD with rockets and fixed forward GAU-17.

Requirement

(1) Discuss: weapons checklists, attack patterns, FRAG patterns, section operations, sighting procedures, malfunction procedures, use of ordnance delivery charts, and crew served weapons employment.

(2) Demonstrate/introduce: cockpit procedures, aircrew coordination, and delivery profiles (to include hover, running and diving fire).

Performance Standards. Per the UH-1N NTTP and the MDG.

Prerequisite. FAM-106.

Ordnance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

SWD-161

1.5 C E 2 UH-1N A

Goal. Review BCWD with rockets, GAU-17/16, and M240 if available.

Requirement

(1) Discuss and brief: weapons preflight, arming, safing procedures, jettison procedures, checklists, attack patterns, FRAG patterns, section operations, sighting procedures, weapons conditions, malfunction procedures, and the WERM formula.

(2) Demonstrate/introduce: cockpit weapons procedures, aircrew coordination, weapons preflight, arming, safing procedures, sighting techniques, delivery procedures (to include hover, running and diving fire), dearming, and postflight.

Performance Standards. Per the UH-1N NTTP and MDG, PUI conducts correct weapons preflight, arming procedures, and ordnance delivery procedures.

Prerequisite. SSWD-160.

Ordnance. 14 2.75 inch rockets, 1500 7.62 mm GAU-17 and 500 .50 Cal GAU-16.

External Syllabus Support. Authorized range.

Crew. WTO/PUI/CC (CCUI/AG).

7. Confined Area Landings (CAL)

a. Purpose. To develop proficiency in performing takeoffs and landings in confined areas.

b. General. PUI must demonstrate the capability to safely takeoff and land in a confined area during day/night, unaided/aided.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Complete CAL stage lectures.

e. Flight and Simulator Event training. (3 Sorties, 4.5 Hours).

CAL-170

1.5

C E 1 UH-1N A

Goal. Introduce confined area operations, to include HIE approaches.

Requirement

(1) Brief and discuss: power settling, single engine power, airspeed charts, height velocity chart, landing zone brief, dynamic rollover, power computations, and aircrew coordination with emphasis on crew chief briefs and utilization.

(2) Demonstrate/introduce: confined area takeoffs/landings (to include steep approaches), HIE approaches, slope landings, maximum power takeoffs, power checks (ground and airborne), and minimum rotor clearance approaches.

Performance Standards. Per the UH-1N NTTP and MDG.

Prerequisite. FAM-106.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI/CC (CCUI).

CAL-171

1.5

C,R E 1 UH-1N A

Goal. Introduce tactical CAL approaches.

Requirement

(1) Brief and discuss: threat conditions, tactical approaches and departures, HIE considerations, and high altitude operations and considerations. Reference UH-1N NTTP.

(2) Demonstrate/introduce: tactical approaches and departures in a low and high threat environment.

(3) Review confined area takeoffs, landings, slope landings and HIE approaches.

Performance Standards. Per the UH-1N NTTP and MDG.

Prerequisite. CAL-170.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI/CC (CCUI).

CAL-172

1.5

C,R,M E 1 UH-1N A NS

Goal. Introduce night unaided to aided CALs.

Requirement

(1) Brief and discuss: use of landing light, searchlight, brown out/white out, and effects of moisture. Emphasize aircrew coordination.

(2) Demonstrate/introduce: takeoffs, approaches, normal landings, slope landings to a lit or unlit confined area. Use aircraft and ground lighting systems when available.

Performance Standards. Per the UH-1N NTTP and MDG.

Prerequisite. FAM-113, FAM-115, CAL-171.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSFII/PUI/CC (CCUI or QO).

8. External Weights (EXT)

a. Purpose. To develop the ability to safely conduct external cargo and hoist operations.

b. General. The PUI shall perform proper hook and hoist operations. Demonstrate the ability to hold a precision hover, safely conduct external pickups, deliveries, and hoist operations. Reference OH-5-3A Helicopter External Cargo Loading Manual for external operations.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. N/A.

e. Flight and Simulator Event Training. (1 Sortie, 1.5 Hours)

EXT-175 1.5 C E 1 UH-1N A

Goal. Introduce external load procedures.

Requirement

(1) Brief and discuss: engine failures, inadvertent IMC, hook/hoist capabilities/limitations, aircrew coordination, HST teams, ground crew brief, and load jettison.

(2) Demonstrate/introduce: proper techniques for external and hoist pickup.

Performance Standards. Per the UH-1N NTTP and MDG.

Prerequisite. FAM-108.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI/CC.

9. Core Skill Introduction Check (CSIX)

a. Purpose. To review all areas of instruction, demonstrate proficiency and knowledge of all maneuvers to certify the PUI as PQM and Core Skill Introduction phase complete.

b. General. PUI shall demonstrate proficiency throughout the Core Skill Introduction phase. Upon completion of the evaluation event, the PUI may be designated as PQM IAW the UH-1N NATOPS Manual. CSIX-181 meets the qualifications for the 7563 MOS and will serve as the initial NATOPS evaluation (RQRD-601).

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. N/A.

e. Flight/Simulator Training. (1 Sortie, 2.0 Hours/1 Simulator Period, 1.5 Hours).

SCSIX-180 1.5 C,R,M E 1 UH-1N S

Goal. Review aircraft normal and emergency procedures.

Requirement

(1) Emphasis will be placed on: aircraft and emergency procedures knowledge, recognizing emergencies, applying appropriate procedures, and power recovery/full autorotations. PUI shall demonstrate the ability to operate the aircraft under all emergency conditions.

(2) PUI is responsible for knowledge of all previously discussed/introduced items.

Performance Standards. Per the UH-1N NATOPS, NTTP and MDG.

Prerequisite. All 100-level stages complete.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

CSIX-181 2.0 C,R,M E 1 UH-1N A

Goal. Core Skill Introduction Check.

Requirement

(1) Discuss: responsibilities of the Pilot in Command (PIC) per OPNAV 3710.7, all previously introduced flight maneuvers, emergency procedures, aircraft limitations, and aircraft systems.

(2) PUI shall safely demonstrate flight proficiency and knowledge of all maneuvers and procedures covered in the Core Skill Introduction phase commensurate with designation as PQM.

Performance Standards. Per the UH-1N NATOPS, NTTP and MDG.

Prerequisite. All 100-level stages complete.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. ANI/PUI/CC (CCUI).

132. CORE SKILL BASIC PHASE

1. Purpose. To produce a TERF and NSQ (HLL) qualified Core Skill Basic copilot.

2. General

a. Upon completion of this phase, the pilot will be TERF and NSQ (HLL) complete and may conduct additional missions as specified by the squadron commander.

b. Completion of TERF-211 meets the requirements for the PUI to be TERF qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as TERF qualified shall be placed in the NATOPS jacket, APR and a tracking code of QUAL-610 shall be logged.

c. Upon completion of all 200-level TERF and CAL night system sorties the pilot may be qualified NSQ (HLL) by the squadron commander. The DLQ stage is not required to be NSQ (HLL). At the discretion of the squadron commanding officer a letter assigning the PUI as NSQ (HLL) qualified shall be placed in the NATOPS jacket, APR and a tracking code of QUAL-611 shall be logged.

3. Ground Training. The ground training requirements are listed per stage of training, and must be completed prior to the associated stage or flight. Squadrons may schedule training earlier in phase to allow maximum student participation.

4. Terrain Flight/Navigation (TERF)

a. Purpose. To refine proficiency in Terrain Flight and Navigation.

b. General. PUI shall be TERF qualified prior to proceeding to follow-on stages, not to include simulator events. PUI will demonstrate proficiency in Terrain Flight and Navigation. Once complete in this stage, the pilot may be TERF qualified (QUAL-610) in writing at the discretion of the commanding officer.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per the MAWTS-1 Course Catalog.

e. Flight/Simulator Training. (2 Sorties, 4.0 Hours).

| | | |
|-----------------|------------|--------------------|
| <u>TERF-210</u> | <u>2.0</u> | <u>C 2 UH-1N A</u> |
|-----------------|------------|--------------------|

Goal. Review TERF maneuvers and navigation.

Requirement

(1) Discuss: terrain appreciation, effective CRM during navigation, terminology, load computations and HIGE/HOGE requirements, squadron tactical SOP, terrain flight tactical

application and operation, high gross weight handling characteristics, and obstacle avoidance.

(2) Demonstrate/introduce: all three modes of TERF, loading and operation of the Mission Data Loader (MDL), and proper CRM during TERF.

(3) Review all TERF maneuvers. Conduct a route brief.

(4) Conduct a navigation route with a minimum of 5 checkpoints utilizing a 1:50,000 scale map minimum length 20 NM.

Performance Standards. Remain oriented within 500 meters and within 1 minute of planned time. Conduct all TERF maneuvers IAW the UH-1N NTTP and NATOPS.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. Authorized TERF route.

Crew. TERFI/PUI/CC/AO.

TERF-211

2.0

C,R E 2 UH-1N A NS

Goal. Review TERF maneuvers and navigation using NVDs.

Requirement

(1) Discuss: SOP light configurations, NVD focus procedures, EPs at night, TERF maneuvers at night, NVD scan patterns, effective CRM during navigation, and cultural lighting.

(2) Demonstrate/introduce: proper NVD scan patterns, light configurations, NVD TERF flight/maneuvers, and effective CRM during navigation and obstacle avoidance.

(3) PUI will conduct a route brief. Conduct a minimum of 5 landings to an unimproved landing site.

(4) Conduct a navigation route with a minimum of 5 checkpoints utilizing a 1:50,000 scale map minimum length 20 NM.

Performance Standards. Remain oriented within 500 meters and within 1 minute of planned time. Conduct all TERF maneuvers per the UH-1N NTTP and NATOPS.

Prerequisite. TERF-210.

Ordinance. N/A.

External Syllabus Support. Authorized TERF route.

Crew. NSI/PUI/CC/AO.

5. Night Vision Device (NVD)

a. Purpose. To develop and refine the use of all UH-1N night systems. This stage is designed to increase situational awareness, reduce pilot

workload, enhance CRM and to increase familiarity with all LASER and IR pointer operations.

b. General. Upon completion of this stage the PUI will demonstrate proficiency to safely conduct NTIS and NVD HUD operational tasks during navigation, terrain flight, and aerial reconnaissance. Pilots will brief and discuss the CRM specific to UH-1N night systems.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Review the UH-1N NTTP, the MAWTS-1 NVD Manual, the appropriate MAWTS-1 Courseware and current NTIS Operator Manual. FLIR reconnaissance training shall be conducted on the current CBT.

e. Flight and Aircraft Event Training. (1 Sortie, 1.5 Hours/1 Static Aircraft Period, 1.0 Hour).

NVD-215

C 1 UH-1N STATIC NS

Goal. Familiarize the PUI with terminology, procedures and operation of the NTIS and NVD HUD.

Requirement. Brief and discuss: FLIR, CDNU, HUD system components, operation and integration. Include standardized terminology, LASER considerations and CRM as it relates to NVD systems. Demonstrate NTIS power up, HCU operation and FLIR picture optimization (Grayscale, NUC, and Gyro Drift Null). Include all operating modes (FIT, Cage, etc.), LASER operation, and shutdown procedures.

Performance Standards. PUI shall exhibit sound systems knowledge per the NTTP, MAWTS-1 NVD Manual, appropriate MAWTS-1 Courseware and current NTIS Operator Manual.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. External power supply.

Crew. NSI/PUI.

SNVD-216

1.5

C 1 UH-1N S NS

Goal. Utilize standardized terminology, procedures and operation of the NTIS and NVD HUD in simulated flight.

Requirement. Review: standardized terminology, LASER considerations and CRM as it relates to NVD systems. Introduce NTIS power up, HCU operation and FLIR picture optimization. Include all operating modes (FIT, Cage, etc.), LASER operation, and shutdown procedures. While operating the HCU in flight the PUI will detect, recognize, identify, and track various objects and terrain features. Perform operation and programming of the NVD HUD.

Performance Standards. PUI shall execute sound systems knowledge IAW the UH-1N NTTP, MAWTS-1 NVD Manual, appropriate MAWTS-1 Courseware and current NTIS Operator Manual. PUI will

demonstrate proficiency in tracking targets through various flight profiles.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

6. Confined Area Landings (CAL)

a. Purpose. To develop the ability to conduct section confined area takeoffs and landings and complete tactical approaches during day and night operations.

b. General. PUI must be TERF complete prior to beginning this stage. Once complete in this stage, the pilot may be qualified in writing NSQ (HLL) by the squadron commander.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. CAL stage lectures (Squadron).

e. Flight/Simulator Training. (4 Sorties, 6 Hours).

CAL-220 1.5 C 2 UH-1N A

Goal. Perform section CALs and introduce HIE approaches.

Requirement. Brief and discuss: threat conditions, tactical approaches/departures, HIE considerations, and high altitude operations. Introduce section tactical approaches into CAL sites from the lead and wingman positions. A minimum of 4 landings will be accomplished as lead and 4 landings will be accomplished as the wingman.

Performance Standards. PUI shall demonstrate safe basic airwork, sound judgment, and situational awareness in the lead and wingman positions.

Prerequisite. TERF-211.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI/CC.

CAL-221 1.5 C 2 UH-1N A NS

Goal. Perform section CALs and introduce HIE approaches at night using NVDs.

Requirement. Brief and discuss: threat conditions, tactical approaches/departures, HIE considerations, NVD HUD considerations and night operations. The introduction of NVD compatible landing zone lighting aids and the IR searchlight is recommended. Introduce night section tactical approaches

into CAL sites in the lead and wingman positions. Review NVD HUD utilization. A minimum of 4 landings will be accomplished as lead and 4 landings will be accomplished as the wingman.

Performance Standards. PUI shall demonstrate safe basic airwork, sound judgment, and situational awareness in the lead and wingman positions.

Prerequisite. CAL-220.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSI/PUI/CC/AO.

CAL-222

1.5 C,R 2 UH-1N A

Goal. Conduct section CALs and introduce section TERF maneuvers.

Requirement. Conduct section tactical formation flight, CALs, tactical approaches, and section TERF maneuvering. A minimum of 4 landings will be accomplished as lead and 4 landings will be accomplished as the wingman.

Performance Standards. PUI shall demonstrate safe basic airwork, sound judgment, and situational awareness in the lead and wingman positions.

Prerequisite. CAL-220.

Ordinance. N/A.

External Syllabus Support. Authorized TERF area.

Crew. TERFI/PUI/CC/AO.

CAL-223

1.5 C,R E 2 UH-1N A NS

Goal. Conduct section CALs and introduce section TERF maneuvers at night using NVDs.

Requirement. Conduct section tactical formation flight, CALs, tactical approaches, and section TERF maneuvering at night. A minimum of 4 landings will be accomplished as lead and 4 landings will be accomplished as the wingman. Evaluate ability to safely conduct all previously covered NVD operations.

Performance Standards. PUI shall demonstrate safe basic airwork, sound judgment, and situational awareness in the lead and wingman positions.

Prerequisite. CAL-221, CAL-222.

Ordinance. N/A.

External Syllabus Support. Authorized TERF area.

Crew. NSI/PUI/CC/AO.

7. Reconnaissance (REC)

a. Purpose. To develop proficiency in reconnaissance operations, placing special emphasis on UH-1N systems.

b. General. The PUI will demonstrate proficiency in aircraft system employment for target detection/recognition/identification during reconnaissance operations. Emphasize sensor management during reconnaissance operations for target detection, recognition and identification.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per the MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (2 Sorties, 3.0 Hours).

REC-230 1.5 C,R 2 UH-1N A (NS)

Goal. Conduct air reconnaissance mission.

Requirement. Under varying threat conditions demonstrate point, line, area and route reconnaissance using all aircraft systems. PUI shall plan and brief this mission. Brief and discuss NTIS procedures, sensor management, and visual reconnaissance techniques. Include ground commander's information requirements, voice reports and video debrief. NTIS aircraft required.

Performance Standards. PUI will collect and deliver the desired information as dictated by the mission requirements.

Prerequisite. TERF-211, NVD-216, SWD flight as required.

Ordnance. 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 400 7.62 mm M-240, 20 Chaff, 20 Flares (ordnance optional).

External Syllabus Support. Thermally significant threat vehicles and LASER-authorized range, if available.

Crew. WTO (NSI)/PUI/CC (AG).

REC-231 1.5 C 1 UH-1N A NS

Goal. Detect, recognize, identify, track and engage selected targets in flight.

Requirement. Brief and discuss: IR theory, VCR operation, and enroute and objective area target acquisition techniques. Demonstrate VCR operation, tape narration and video debrief. Review standardized terminology, LASER operations, and the programming/operation of the NVD HUD and CRM as it relates to NVD systems. IP will assign the targets to be detected, recognized, identified, tracked and engaged with the appropriate LASER. Operable NTIS required.

Performance Standards. PUI will detect, recognize, identify, track and engage targets through various flight profiles.

Prerequisite. TERF-211, NVD-215, NVD-216.

Ordnance. N/A.

External Syllabus Support. Thermally significant threat vehicles and LASER authorized range if available.

Crew. NSI/PUI/CC/AO.

8. Specific Weapons Delivery (SWD)

a. Purpose. To develop proficiency in specific weapons delivery.

b. General. At the completion of this stage, the PUI will have displayed proficiency at delivering ordnance and proper use of the NTIS under all threat conditions. Emphasis will be on CRM while utilizing the ordnance systems.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per the MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (4 Sorties, 6.0 Hours/1 Simulator Period, 1.5 Hours).

SSWD-240 1.5 C 1 UH-1N S

Goal. Conduct BCWD with rockets and fixed forward GAU-17.

Requirement. Discuss: weapons checklists, attack patterns, FRAG patterns, sighting techniques, malfunction procedures, and use of ordnance delivery charts. Review procedures, aircrew coordination, weapon malfunctions/emergencies and delivery profiles. PUI shall conduct hover fire, running fire, diving fire, long range marking, and illumination rocket delivery IAW the UH-1N NTTP.

Performance Standards. PUI shall execute proper ordnance procedures and precise delivery profiles.

Prerequisite. N/A.

Ordnance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

SWD-241 1.5 1 UH-1N A

Goal. Day crew served weapons employment.

Requirement. Brief and discuss: all UH-1N crew served weapons. Include CRM, crew served weapons employment, weapons conditions, weapons malfunctions and section ordnance delivery considerations. Introduce weapons preflight and crew served weapons arming/dearming considerations.

Performance Standards. PUI shall execute proper gunner control procedures per the UH-1N NTTP.

Prerequisite. TERF-211 and SSWD-240.

Ordnance. 3000 7.62 mm GAU-17, 500 .50 Cal GAU-16, 400 7.62 mm M240, 20 Chaff, 20 Flares.

External Syllabus Support. Aerial gunnery range.

Crew. WTO/PUI/CC/AG.

SWD-242

1.5 1 UH-1N A NS

Goal. NVD crew served weapons employment.

Requirement. Review AG-231 at night using NVDs. Brief and discuss night ordnance considerations, IR pointers, and crew served weapons malfunctions. The IP will demonstrate the effects of weapons employment on NVDs. Utilize IR pointers if available.

Performance Standards. PUI shall execute proper gunner control procedures per the UH-1N NTTP and MAWTS-1 NVD manual.

Prerequisite. SWD-241.

Ordnance. 3000 7.62 mm GAU-17, 500 .50 Cal GAU-16, 400 7.62 mm M240, 20 Chaff, 20 Flares.

External Syllabus Support. Aerial gunnery range.

Crew. NSI/PUI/CC/AG.

SWD-243

1.5 C,R 2 UH-1N A

Goal. To develop proficiency at ordnance delivery.

Requirement

(1) Discuss: weapon switchology with emphasis on ordnance trouble shooting, attack patterns, SOP ordnance procedures, use of rocket charts and delivery techniques, target fixation, ALE-39 components/functions and rocket/gun related emergency procedures.

(2) Demonstrate a RW CAS mission to include coordination with the terminal controller and section tactics.

(3) Review: ordnance procedures, aircrew coordination, weapons preflight, arming/dearming, and clear and safe procedures. Employ rockets, fixed forward guns and crew served weapons in running and diving fire.

(4) Review all ordnance emergencies, CRM during ordnance evolutions, and HUD symbology.

Performance Standards. Successful employment of rockets at ranges from 500-2000 meters, exhibiting proper impact detection and adjustment to work towards effect on target while adhering to all range regulations.

Prerequisite. SWD-241.

Ordnance. 7 2.75 inch rockets, 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 400 7.62 mm M-240, 20 Chaff, 20 Flares.

External Syllabus Support. Authorized aerial ordnance delivery range; terminal controller if available.

Crew. WTO/PUI/CC/AG.

SWD-244

1.5 C,R 2 UH-1N A NS

Goal. To develop proficiency at ordnance delivery using NVDs.

Requirement

(1) Brief and discuss: 2.75 inch rocket motors, warheads and fuses. Include illumination considerations, section attack patterns, mutual support, IR CAS and IR pointer techniques, NVD sighting procedures, terminal control briefs and attack routing.

(2) Demonstrate a RW CAS mission to include coordination with the terminal controller and section tactics. Review ordnance procedures, effects of ordnance delivery on NVDs, aircrew coordination, weapons preflight and arming/dearming.

(3) Employ rockets, fixed forward guns and crew served weapons in running and diving fire.

Performance Standards. Successful employment of rockets at ranges from 500-2000 meters, exhibiting proper impact detection and adjustment to work towards effect on target while adhering to all range regulations.

Prerequisite. SWD-242, SWD-243.

Ordnance. 7 2.75 inch rockets, 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 400 7.62 mm M-240, 20 Chaff, 20 Flares.

External Syllabus Support. Authorized aerial ordnance delivery range; terminal controller, if available.

Crew. NSI/PUI/CC/AG.

9. Escort (ESC)

a. Purpose. To develop proficiency in prescribed heliborne or surface escort formations and maneuvers per current tactical doctrine.

b. General. The pilot will develop a working knowledge of escort formations, maneuvers, and techniques associated with heliborne operations. Ordnance is optional for this stage of training. If ordnance is utilized, the PUI shall have completed the SWD flight corresponding to the ordnance load.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. IAW the MAWTS-1 Course Catalog.

e. Flight/Simulator Training. (3 Sorties, 4.5 Hours).

ESC-2501.5C 2 UH-1N A

Goal. Demonstrate and introduce helicopter escort procedures.

Requirement

(1) Discuss: advantages/disadvantages of attached/detached escort, formations, LZ clearance/coverage techniques and procedures, threat reaction SOPs, immediate action procedures, and escort/assault support terminology.

(2) Demonstrate/introduce: escort responsibilities and current tactical doctrine during assault support operations. Introduce attached/detached/combined escort, escort/assault support mission planning and operations within the objective area/LZ.

Performance Standards. Exhibit a thorough understanding of escort responsibilities and assault support operations.

Prerequisite. TERF-211. If ordnance is utilized, the PUI shall have completed the SWD flight corresponding to the ordnance load.

Ordnance. 7 2.75 inch rockets, 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 400 7.62 mm M-240, 20 Chaff, 20 Flares.

External Syllabus Support. One or more assault aircraft.

Crew. WTO/PUI/CC (AG).

ESC-2511.5C,R 2 UH-1N A NS

Goal. Demonstrate and introduce night helicopter escort using NVDs.

(1) Discuss: night LZ clearance/coverage techniques and procedures, night escort techniques/procedures, lighting and threat detection/supporting arms coordination, fragmentation patterns, assault sectors of fire and escort/assault integration and deconfliction.

(2) Demonstrate/introduce: tactical employment of ordnance around assault helicopters enroute to, and in the LZ (objective area), LZ coverage patterns and ordnance delivery procedures at night with NVDs.

Performance Standards. PUI will perform escort operations IAW the UH-1N NTTP and MAWTS-1 NVD manual.

Prerequisite. ESC-250.

Ordnance. 7 2.75 inch rockets, 1500 7.62 mm GAU-17, 300 GAU-16, 400 M240, 20 Chaff, 20 Flares.

External Syllabus Support. One or more assault aircraft.

Crew. NSI/PUI/CC/AO.

ESC-252 1.5 C,R 2 UH-1N A (NS)

Goal. Introduce surface force escort operations.

Requirement

(1) Discuss: surface escort procedures and techniques. Emphasize tactical employment of ordnance in close proximity to surface vehicles, terminal controller procedures both in the enroute phase and in the objective area. Discuss: ordnance fragmentation patterns, detailed fire support planning/integration with the supported unit. Introduce route coverage patterns, actions in the objective area and ordnance delivery procedures.

(2) Discuss: METT-TSL requirements, escort fire support coordination, overwatch techniques, methods of escort, route and objective clearance/coverage techniques and procedures.

Performance Standards. Exhibit a thorough understanding of surface escort responsibilities in support of the GCE scheme of maneuver.

Prerequisite. If ordnance is utilized, the PUI shall have completed the SWD flight corresponding to the ordnance load.

Ordnance. 7 2.75 inch rockets, 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 400 7.62 mm M-240, 20 Chaff, 20 Flares.

External Syllabus Support. One or more land or sea surface vehicles.

Crew. WTO (NSI)/PUI/CC (AG).

10. Tactics (TAC)

a. Purpose. Conduct day/night tactical missions in various threat environments.

b. General. PUI will demonstrate the knowledge and ability to conduct selected missions from the UH-1N METL.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per the MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (2 Sorties, 3.0 Hours).

TAC-260 1.5 C 1 UH-1N A (NS)

Goal. Conduct a Command and Control (C&C) mission in support of an assault support mission.

Requirement. Brief and discuss: nomenclature, operation, tactical employment of the ARC-210, SINCGARS/HAVEQUICK, remote control head, SATCOM, UAV RRS, MCA selection, fuel planning and AMC/TAC(A)/ASC (A) communications and responsibilities. This flight shall be flown in conjunction with a multiple aircraft operation. NTIS required if available.

Performance Standards. The PUI will demonstrate a solid understanding of the mission requirements and successfully assist the AMC/TAC(A)/ASC (A) in the execution of the mission.

Prerequisite. TERF-211, NSQ (HLL) if flown at night.

Ordinance. N/A.

External Syllabus Support. Assault Support Package (2 or more assault support aircraft)

Crew. WTO (NSI)/PUI/CC (AO).

TAC-261

1.5

C 2 UH-1N A (NS)

Goal. Conduct an assault support or maritime special operations mission.

Requirement. IP shall conduct mission brief to demonstrate tactical briefing and debriefing. Brief and discuss threat considerations, HIE techniques, tactical SOPs, ASE and deception plan. Emphasize assault support mission planning and execution to include the GCE SOM, HEALT/HWSAT, bump plan, PZ, LZ, crew served sectors of fire, MACO, emergency extract, immediate re-embarkation and lost communication signals. NTIS required if available.

Performance Standards. The PUI will demonstrate a solid understanding of the mission requirements and successfully support the GCE maneuver.

Prerequisite. CAL-222, NSQ (HLL) if flown at night. If ordnance is utilized, the PUI shall have completed the SWD flight corresponding to the ordnance load.

Ordinance. 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 400 7.62 mm M-240, 20 Chaff, 20 Flares (ordnance optional).

External Syllabus Support. Helicopter escort and embarked Marines if available.

Crew. WTO (NSI)/PUI/CC (AG).

133. CORE SKILL ADVANCED PHASE

1. Purpose. To produce a core skill advanced pilot. Upon completion of the Core Skill Advanced Phase, pilots shall be proficient in all core skills.

2. General. Upon completion of the Core Skill Advanced phase, pilots may be designated NSQ (LLL), Utility Helicopter Commander (UHC), and Forward Air Controller Airborne [FAC(A)].

a. Completion of all ANSQ events meet the requirements for the PUI to be NSQ (LLL) qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as ANSQ (LLL) qualified shall be placed in the NATOPS jacket, APR and a tracking code of QUAL-612 shall be logged.

b. Completion of the FAC stage meets the requirements for the PUI to be FAC(A) qualified. At the discretion of the squadron commanding officer a

letter assigning the PUI as FAC(A) qualified shall be placed in the NATOPS jacket and APR and a tracking code of QUAL-624 shall be logged.

c. Completion of the Core Skill Basic phase, the EW, ANSQ and TAC stages through TAC-325 of the Core Skill Advanced phase and HIE-403 meet the requirements for the PUI to be eligible for the UHC designation. Upon completion of any previously flown TAC event and at the discretion of the squadron commanding officer a letter designating the PUI as a UHC shall be placed in the NATOPS jacket, APR and a tracking code of DESG-631 shall be logged.

3. Ground Training. The ground training requirements are listed per stage and must be completed prior to the associated stage/flight. Squadrons may schedule training earlier in stage to allow maximum student participation.

4. Electronic Warfare (EW)

a. Purpose. To introduce offensive/defensive electronic countermeasures, tactics, and employment of Aircraft Survivability Equipment (ASE).

b. General. An EW range and/or a TRTG/threat simulator shall be used. Use of a ship's RADAR system or MACCS facility may be substituted for non-simulator events.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (1 Sortie, 2.0 Hours/1 Simulator Period, 1.5 Hours).

SEW-300 1.5 C UH-1N S

Goal. ASE and EW introduction.

Requirement. Brief and discuss ASE system operations and counter-tactics per current tactical doctrine. Demonstrate and introduce tactical employment of aircraft ASE against preplanned and reactive targets.

Performance Standards. Use ASE per the UH-1N NATOPS and UH-1N NTTP.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI (CP).

EW 301 2.0 C,R 1 UH-1N A

Goal. ASE and EW practical application.

Requirement

(1) Review APR-39, APR-44, ALQ-144, and ALE-39 systems operation. Review threat radar systems and their associated

APR-39/44 indications. Review ALE-39 expendable characteristics.

(2) Discuss the capabilities/limitations/weapon envelopes of potential threat systems, radar resolution cells, radar horizons, terrain profile analysis and related tactical considerations. Conduct single aircraft against numerous ground threats. Demonstrate maneuvers necessary to avoid detection from enemy radar and infrared guided and optically tracked systems. Emphasize crew coordination and communications, and effectiveness of terrain masking to deny acquisition. PUI shall incorporate all ASE to assist in early threat detection and application of appropriate tactics.

Performance Standards. Successfully operate and troubleshoot APR-39, APR-44, ALQ-144 and ALE-39 systems. Given a threat, load an appropriate ALE program.

Prerequisite. SEW-300.

Ordinance. 20 Chaff, 40 Flares.

External Syllabus Support. Manned EW range, TRTG, or remote radar emitter; LASER safe range if available.

Crew. WTO/PUI/CC/AO.

5. Advanced Night System Qualification (ANSQ)

a. Purpose. To develop proficiency during LLL operations.

b. General. At the completion of this stage, the PUI will effectively employ the UH-1N under LLL conditions. Once complete in this stage, the pilot may be qualified in writing NSQ (LLL) by the squadron commander, and may complete the remaining Core Skill Advanced NVD training under any light level condition.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per the MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (3 Sorties, 4.5 Hours/1 Simulator Period, 1.5 Hours).

SANSQ-310 1.5 C UH-1N S NS

Goal. Perform NVD and aircraft emergency procedures during LLL conditions.

Requirement

(1) Discuss crew comfort during LLL NVG operations and LLL scheduling restrictions. Discuss NVD effects encountered during LLL conditions. Discuss use of the searchlight (covert/overt) during emergency procedures.

(2) Introduce pattern work at unlit and lit landing sites. Introduce NVD/aircraft emergency procedures at unlit and lit landing sites. Introduce inadvertent IMC (IIMC) procedures.

(3) Conduct 5 landings at an unlit site, 5 landings at a lit site and 5 autorotations. Conduct NVD and aircraft emergencies. Conduct IIMC procedures.

Performance Standards. Per NATOPS.

Prerequisite. NSQ (HLL).

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

ANSQ-311

2.0 C 1 UH-1N A NS

Goal. Perform NVD low work, pattern work and navigation during LLL conditions.

Requirement

(1) Discuss map preparation, checkpoint selection, and cultural lighting. Discuss aircraft external lighting configurations and options.

(2) Introduce basic low work and pattern work at an unlit field or remote landing site free from artificial illumination. Introduce NVD navigation techniques by planning and navigating a 5 checkpoint route utilizing a 1:250,000 map.

(3) Conduct 5 landings at an unlit field or remote landing site free from artificial illumination.

Performance Standards. Navigate a route consisting of a minimum of 5 checkpoints and 50 NM remaining oriented within 1 NM of flight planned route. Arrive at final checkpoint within 1 minute of assigned time. Utilize GPS for at least 2 legs of the route if available.

Prerequisite. SANSQ-310.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSI/PUI/CC/AO.

ANSQ-312

1.5 C,R 2 UH-1N A NS

Goal. Develop proficiency in navigation and TERF navigation using NVDs under LLL conditions.

Requirement. Brief and discuss crew coordination, comfort level and differences between HLL and LLL profiles. Conduct navigation route of at least 5 checkpoints and 20 NM under LLL conditions using a 1:250,000 JOG (AIR) chart and 1:50,000

tactical map in the low level, contour, and NOE flight modes. NTIS, NVD HUD equipped aircraft required if available.

Performance Standards. PUI will perform maneuvers per the MDG, UH-1N NTTP and MAWTS-1 NVD Manual. PUI will remain oriented within 1 NM of course on the 1:250,000 scale map. PUI must remain oriented within 500 meters of the course line on the 1:50,000 scale map and arrive at the final checkpoint within 2 minutes of the planned time.

Prerequisite. ANSQ-311.

Ordinance. N/A.

External Syllabus Support. Authorized TERF area.

Crew. NSI/PUI/CC/AO.

ANSQ-313

1.5

C,R E 2 UH-1N A NS

Goal. Develop proficiency in tactical formation flight, CALs and section tactics using NVDs during LLL conditions.

Requirement. Brief and discuss IMC, external aircraft lighting, hazards and night systems integration. Review TERF maneuvers in LLL conditions. Conduct section CALs and section tactics using NVDs in the low level, contour, and NOE flight modes. Perform a minimum of 4 CALs as lead and 4 CALs as the wingman. NTIS, NVD HUD equipped aircraft required if available.

Performance Standards. PUI will perform maneuvers per the MDG, UH-1N NTTP and MAWTS-1 NVD Manual.

Prerequisite. ANSQ-311.

Ordinance. N/A.

External Syllabus Support. Authorized TERF area.

Crew. NSI/PUI/CC/AO.

6. Tactics (TAC)

a. Purpose. Conduct day and night tactical missions under MCCRES/MEU (SOC) standards in a permissive or non-permissive environment.

b. General. Upon completion of the TAC stage and successful completion of DESG-631 (-2 in a tactical mission) the PQM may be designated a UHC at the discretion of the commanding officer.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. UH-1N NTTP and appropriate MAWTS-1 Courseware.

e. Flight and Simulator Event Training. (6 Sorties, 9.0 Hours).

TAC-320

1.5

1 UH-1N A NS

Goal. Develop proficiency in ordnance delivery under LLL conditions while using NVDs.

Requirement. Emphasize aircrew coordination, crew served weapons employment, weapons conditions, malfunctions, weapons preflight and arming/dearming.

Performance Standards. PUI shall demonstrate ability to effectively control gunners IAW the UH-1N NTTP.

Prerequisite. SWD-242, ANSQ-313.

Ordnance. 3000 7.62 mm GAU-17, 500 .50 Cal GAU-16, 400 7.62 mm M-240, 20 Chaff, 20 Flares.

External Syllabus Support. Aerial gunnery range.

Crew. NSI/PUI/CC/AO.

TAC-321

1.5 C,R 2 UH-1N A NS

Goal. Develop proficiency in ordnance delivery under LLL conditions while using NVDs.

Requirement. Brief and discuss: crew coordination, target identification and objective area mechanics, rocket fragmentation patterns, comfort level, NVD ordnance delivery, and the use of illumination.

Performance Standards. PUI shall deliver ordnance that has effects on the assigned target and effectively control gunners IAW the UH-1N NTTP.

Prerequisite. SWD-244, ANSQ-313.

Ordnance. 7 2.75 inch rockets (HE/Inert or Illumination), 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 400 7.62 mm M-240, 20 Chaff, 20 Flares.

External Syllabus Support. Authorized aerial ordnance delivery range.

Crew. NSI/PUI/CC/AG.

TAC-322

1.5 C 2 UH-1N A NS

Goal. Develop proficiency escort maneuvers, techniques, and responsibilities during RW operations utilizing NVDs.

Requirement. Repeat ESC-251 under LLL conditions. PUI shall plan and brief the mission. Discuss tactical employment of ordnance, fragmentation patterns, RW formations and assault flight gunner procedures in the night environment. Emphasize coordination with supported units during planning. NTIS, NVD HUD equipped aircraft required if available.

Performance Standards. PUI will perform escort operations per the UH-1N NTTP and MAWTS-1 NVD manual.

Prerequisite. ESC-251.

Ordnance. 7 2.75 inch rockets, 1500 7.62 mm GAU-17, 300 GAU-16, 400 M240, 20 Chaff, 20 Flares.

External Syllabus Support. One or more assault aircraft, authorized aerial ordnance delivery range.

Crew. NSI/PUI/CC/AO.

TAC-323

1.5 C 2 UH-1N A (NS)

Goal. Conduct a TRAP mission.

Requirement. Conduct a TRAP mission using escort and assault support aircraft. NVDs shall be used if conducted at night. NTIS equipped aircraft required if available.

Performance Standards. PUI shall brief and lead per the UH-1N NTTP.

Prerequisite. If flown during the day, TAC-261. If flown at night NSQ (HLL) or ANSQ-313 as appropriate for the light condition. Appropriate SWD sortie for ordnance configuration.

Ordnance. 7 2.75 inch rockets, 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 400 7.62 mm M240, 20 Chaff, 20 Flares (if available).

External Syllabus Support. Assault support aircraft or escort aircraft if available, authorized aerial ordnance delivery range.

Crew. WTO (NSI)/PUI/CC/AO.

TAC-324

1.5 C,R 2 UH-1N A NS

Goal. Conduct troops in contact insert/extract mission at night with NVDs.

Requirement. Conduct a 2 or more aircraft heliborne assault in a nonpermissive and MINCOM environment.

Performance Standards. PUI shall brief and lead per the UH-1N NTTP.

Prerequisite. ANSQ-313.

Ordnance. 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 400 7.62 mm M240, 20 Chaff, 20 Flares.

External Syllabus Support. Escort aircraft optional and embarked troops if available.

Crew. NSI/PUI/CC/AO.

TAC-325

1.5 C,R 2 UH-1N A NS

Goal. Conduct a CAS mission under terminal control at night utilizing NVDs.

Requirement. Conduct a 2 or more aircraft CAS mission under terminal control.

Performance Standards. PUI shall brief and lead per the UH-1N NTTP. Ordnance delivery should have effects on the assigned target and be delivered +/- 15 seconds of the assigned TOT.

Prerequisite. TAC-321 or SWD-244 as appropriate.

Ordnance. 14 2.75 rockets, 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 400 7.62 mm M240, 20 Chaff, 20 Flares.

External Syllabus Support. Ordnance delivery range and terminal controller.

Crew. NSI/PUI/CC/AO.

8. Forward Air Controller (Airborne) [FAC(A)]

a. Purpose. To qualify PUI as a FAC(A) per applicable directives.

b. General. At the completion of this stage, the PUI will have demonstrated a thorough knowledge of the FAC(A) procedures used to control FW aircraft and supporting arms under varied environmental and threat conditions. At the completion of this stage the PUI may be designated a FAC(A) by the squadron commanding officer and will be assigned the tracking code of QUAL-624. For pilots returning directly from FAC tours, this stage may be abbreviated by the commanding officer based upon the pilot's terminal controller experience level. An aircraft control for the purpose of defining requirements is a mission that ends with a "cleared hot," "continue dry," or "abort" issued from the terminal controller. Credit for each control will go to both pilots.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. EWTG developed FAC(A) syllabus.

e. Flight and Simulator Event Training. (4 Sorties, 7.5 Hours).

FAC-340 1.5 C 1 UH-1N A (NS)

Goal. Introduce indirect fire supporting arms control.

Requirement. Operable FLIR if available.

(1) Discuss capabilities and limitations of indirect fire assets. Discuss SEAD procedures. Discuss LASER call for fire procedures.

(2) Introduce call for fire procedures. PUI will control indirect fire assets.

(3) Conduct a minimum of 3 fire missions, 2 of which shall be adjust fire missions.

Performance Standards. Per applicable directives.

Prerequisites. N/A.

Ordnance. N/A.

External Syllabus Support. One indirect fire asset, live fire range and LASER safe range.

Crew. FAC(A)I/PUI/CC(AG).

FAC-341

2.0 C,R 2 UH-1N A

Goal. Introduce control of FW aircraft.

Requirement. UH-1N with operable FLIR if available.

(1) Discuss FW aircraft ordnance capabilities and limitations. Discuss crew coordination, task shedding and task sharing in the FAC(A) arena.

(2) Introduce integration of FW CAS assets into objective area mechanics. Introduce communication and control procedures. PUI will control FW CAS assets.

(3) Conduct a minimum of 4 controls.

Performance Standards. Per applicable directives.

Prerequisites. N/A.

Ordnance. 7 x 2.75 inch (WP) rockets.

External Syllabus Support. 2 FW CAS aircraft with ordnance, live fire range and LASER safe range.

Crew. FAC(A) I/PUI/CC (AG).

FAC-342

2.0 C,R 2 UH-1N A NS

Goal. Introduce control of FW aircraft at night.

Requirement. UH-1N with operable FLIR if available. PUI will brief a FAC(A) game plan.

(1) Discuss FW aircraft sensor capabilities and limitations.

(2) Review integration of FW CAS assets into objective area mechanics. Review communication and control procedures. Review crew coordination, task shedding and task sharing in the FAC(A) arena. Pilot will control FW CAS assets.

(3) Conduct a minimum of 4 controls.

Performance Standards. Per applicable directives.

Prerequisite. N/A.

Ordnance. 7 x 2.75 inch (WP) rockets.

External Syllabus Support. 2 FW CAS aircraft with ordnance, live fire range and LASER safe range.

Crew. NSI and FAC(A)I/PUI/CC (AG).

FAC-343

2.0 C,R E 2 UH-1N (NS)

Goal. Introduce supporting arms consolidation.

Requirement. UH-1N with operable FLIR if available. Pilot will brief a FAC(A) game plan.

(1) Discuss fire support planning documents (target list worksheet, scheduling worksheet). Discuss weapon to target match.

(2) Review integration of multiple supporting arms assets into objective area mechanics. Review SEAD procedures. PUI will coordinate SEAD in support of FW target engagement.

(3) Conduct a minimum of 4 FW controls.

Performance Standards. Per applicable directives.

Prerequisite. N/A.

Ordnance. 7 x 2.75 inch (WP) rockets.

External Syllabus Support. Two FW CAS aircraft with ordnance, 1 indirect fire asset OR 1 section of RW aircraft separate from flight, live fire range and LASER safe range.

Crew. FAC(A) I (NSI)/PUI/CC (AG).

134. CORE SKILL PLUS PHASE

1. Purpose. To certify the PUI in large scale integrated mission events; events having unique mission taskings; events having a low probability of execution in combat, or relatively high risk events.

2. General

a. Completion of the Rotary Wing Defensive Air Combat Maneuvering (RWDACM) stage meets the requirements for the PUI to be RWDACM qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as RWDACM qualified shall be placed in the NATOPS jacket, APR and a tracking code of QUAL-618 shall be logged.

b. Completion of the FWDACM stage meets the requirements for the PUI to be DACM qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as DACM qualified shall be placed in the NATOPS jacket, APR and a tracking code of QUAL-619 shall be logged.

c. Completion of CQ-430 meets the requirement for the PUI to be CQ qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as CQ qualified shall be placed in the NATOPS jacket, APR and a tracking code of QUAL-615, 616, and 617 shall be logged.

3. Helicopter Insertion/Extraction (HIE)

a. Purpose. To develop the ability to perform HIE operations.

b. General. Upon the completion of each HIE event the pilot will be considered capable of performing that particular mission.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Review the applicable MAWTS-1 Courseware and corresponding chapter of the UH-1N NTTP.

e. Flight and Simulator Event Training. (7 Sorties, 7.0 Hours).

HIE-4001.0C 1 UH-1N A (NS)

Goal. Introduce techniques for paradrop operations.

Requirement. Brief and discuss aircraft rigging, insertion techniques, aircrew coordination, and emergencies. PUI shall conduct two paradrops of at least two jumpers.

Performance Standards. Perform paradrop maneuvers per the UH-1N NTTP and appropriate HIE Manual.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. Jump Master and 2 jumpers.

Crew. BIP/PUI/CC (NSI/PUI/CC/AO).

HIE-4011.0C 1 UH-1N A (NS)

Goal. Introduce techniques for water insertion.

Requirement. Brief and discuss: aircraft rigging, insertion and extraction techniques, aircrew coordination, and emergencies. PUI shall insert two sticks of two swimmers.

Performance Standards. Perform HIE maneuvers per the UH-1N NTTP and appropriate HIE Manual.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. HRST Master and two swimmers.

Crew. BIP/PUI/CC (NSI/PUI/CC/AO).

HIE-4021.0C,R 1 UH-1N A

Goal. Introduce techniques for insertion/extraction using the Special Personnel Insertion/Extraction (SPIE) rig or Jacob's Ladder.

Requirement. Brief and discuss aircraft rigging, insertion and extraction techniques, aircrew coordination, and emergencies. Complete 3 iterations consisting of an extract, transition to flight, and insert.

Performance Standards. Perform HIE maneuvers per UH-1N NTTP and appropriate HIE Manual.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. HRST Master and 2 ropers.

Crew. BIP/PUI/CC.

HIE-4031.0C 1 UH-1N A

Goal. Introduce techniques for insertion by fastrope.

Requirement. Brief and discuss aircraft rigging, insert techniques, aircrew coordination, and emergencies.

Performance Standards. PUI will perform maneuvers per the UH-1N NTTP, HIE Manual and local orders.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. HRST Master, ropers.

Crew. BIP/PUI/CC.

HIE-4041.0C 1 UH-1N A

Goal. Introduce techniques for insertion by rappelling.

Requirement. Brief and discuss aircraft rigging, insertion techniques, aircrew coordination, and emergencies. Complete 3 insertions of 2 ropers.

Performance Standards. Perform HIE maneuvers per the UH-1N NTTP and appropriate HIE Manual.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. HRST Master and 2 ropers.

Crew. BIP/PUI/CC.

HIE-4051.0C 1 UH-1N A

Goal. Introduce techniques for emergency rescue hoist and external load procedures.

Requirement

(1) Brief and discuss: engine failures, tail rotor emergencies, inadvertent IMC, settling with power, aircraft rigging, hook capabilities, hoist capabilities, aircrew coordination, HST procedures, ground crew brief, emergencies, and load jettison.

(2) Demonstrate/introduce proper techniques for external loads and hoist pickup.

(3) Complete 3 iterations of hoist operations (extract) or 3 iterations of hook procedures (pick-up, transit, delivery).

Performance Standards. Conduct flight and hook/hoist procedures per the UH-1N NATOPS Manual, UH-1N NTTP, HIE Manual, and local directives.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. Appropriate external weight.

Crew. BIP (NSI)/PUI/CC (AO).

HIE-406

1.0 C,R 1 UH-1N A NS

Goal. Introduce techniques for fastrope or rappel at night.

Requirement. Brief and discuss aircraft rigging, insertion techniques, aircrew coordination, and emergencies. Complete 3 insertions of at least 2 ropers.

Performance Standards. Perform HIE maneuvers per UH-1N NTTP and appropriate HIE Manual.

Prerequisite. HIE-403 or HIE-404 as appropriate.

Ordinance. N/A.

External Syllabus Support. HRST Master and 2 ropers.

Crew. NSI/PUI/CC/AO.

4. Rotary Wing Defensive Air Combat Maneuvering (RWDACM)

a. Purpose. To demonstrate and introduce RWDACM and qualify the PUI as RWDACM complete.

b. General. At the completion of this phase, the PUI will be proficient in the conduct of the principles of RWDACM and have a thorough knowledge of weapons employment, aircraft control, and threat tactics of RW adversaries.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per the MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (4 Sorties, 5.5 Hours).

DACM-410

1.5 C 2 UH-1N A

Goal. Introduce air-to-air gunnery against a towed dart/banner, shadow target, Moving Land Target, or Ground Land Target.

Requirement. Develop the flight skills necessary to engage a moving target.

Performance Standards. Successful engagement on 2 passes.

Prerequisite. SSWD-240 (if simulator is available).

Ordinance. 1,500 7.62 mm GAU-17, 500 .50 Cal GAU-16, 400 7.62 mm M240, and 5 2.75 inch flechette rockets (required if available).

External Syllabus Support. Any aircraft capable of being configured to tow a banner target, dart target, or capable of producing a shadow. Use a Ground Moving Target or Moving Land Target if towed banner or dart is not available.

Crew. WTO/PUI/CC/AG.

DACM-411

1.0 C,R E 1 UH-1N A

Goal. Introduce 1 v 1 RWDACM.

Requirement

(1) Discuss: concepts of energy maneuverability and specific excess power and their applicability to tactical considerations; concepts of the high and low yo-yo and the appropriate counter tactics to these maneuvers; weapons employment rules of thumb; range estimation techniques; line number setups; DACM training rules; crew coordination, aircraft control and flight leadership.

(2) Introduce capabilities/limitations and weapons envelopes of adversary RW aircraft.

(3) Conduct one complete line number sequence (from both friendly and adversary roles). Maintain aircraft control and NATOPS limitations.

Performance Standards. Execute proper reactions to RW threat attacks.

Prerequisite. N/A.

Ordinance. TACTS pod if available, 20 Flares.

External Syllabus Support. One adversary helicopter and appropriate air-to-air training area.

Crew. DACMI/PUI/CC/AO.

DACM-412

1.0 C,R 2 UH-1N A

Goal. Introduce 2 v 1 helicopter DACM maneuvering.

Requirement

(1) Discuss: weapons employment rules of thumb, range estimation techniques, line number setups, and DACM training rules; crew coordination, aircraft control and flight leadership; section tactics and roles and responsibilities of free and engaged; concept of the weave.

(2) Review capabilities/limitations and weapons envelopes of adversary RW aircraft. Review the concepts of energy maneuverability and specific excess power and their applicability to tactical considerations.

(3) Conduct 1 complete line number sequence (from both tactical lead and tactical wingman positions).

Performance Standards. Maintain aircraft control and NATOPS limitations. Execute proper reactions to RW threat attacks.

Prerequisite. DACM-411.

Ordinance. TACTS pod if available, 20 Flares.

External Syllabus Support. One adversary helicopter and appropriate air-to-air training area.

Crew. DACMI/PUI/CC/AO.

DACM-413

2.0 C E 2 UH-1N A

Goal. Review 1 v 1 and 2 v 1 RWDACM.

Requirement

(1) Discuss crew coordination, aircraft control and flight leadership; section tactics and roles and responsibilities of free and engaged aircraft; concept of the weave.

(2) Review the concepts covered during DACM-411 and DACM-412.

(3) Conduct one complete line number sequence (from both tactical lead and tactical wingman positions). Maintain aircraft control and NATOPS limitations.

Performance Standards. Execute proper reactions to RW threat attacks.

Prerequisites. DACM-412.

Ordinance. TACTS pod if available, 20 Flares.

External Syllabus Support. One adversary helicopter and appropriate air-to-air training area.

Crew. DACMI/PUI/CC/AO.

5. Fixed Wing Defensive Air Combat Maneuvering (FWDACM)

a. Purpose. To demonstrate and introduce DACM techniques against a FW threat.

b. General. At the completion of this stage, the PUI will be proficient in the conduct of the principles of FWDACM and have a thorough knowledge of weapons employment, aircraft control, and threat tactics of FW adversaries.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per the MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (3 Sorties, 3.0 Hours).

DACM-414

1.0 C,R 1 UH-1N A

Goal. Introduce 1 v 1 FWDACM maneuvering.

Requirement

(1) Conduct RW v FW (1 v 1) DACM maneuvering IAW the MAWTS-1 DACM Manual.

(2) Discuss: capabilities/limitations and weapon systems/envelopes of adversary FW aircraft. Emphasize Ps/E-M, game plan, and procedures to counter the threat. Discuss: FW air-to-ground, air-to-air, and attack profiles used against RW aircraft.

(3) PUI shall demonstrate knowledge of aircraft limitations and a basic understanding of 1 v 1 maneuvers.

Performance Standards. Execute proper reactions to FW threat attacks.

Prerequisite. N/A.

Ordinance. TACTS pod if available, 10 Chaff, 10 Flares.

External Syllabus Support. One FW adversary and telemetry range if available. Appropriate air-to-air training area.

Crew. DACMI/PUI/CC/AO.

DACM-415

1.0 C 2 UH-1N A

Goal. Introduce 2 v 1 FWDACM maneuvering.

Requirement

(1) Conduct RW v FW (2 v 1) DACM maneuvering. Stress crew coordination, comfort level, positive aircraft control, tactical formation maneuvering, lookout doctrine, common terminology, inter-aircraft coordination and mutual support.

(2) Discuss: capabilities/limitations, weapon systems, envelopes, and likely FW tactics and counter tactics.

Performance Standards. Execute proper reactions to FW threat attacks.

Prerequisite. DACM-414.

Ordinance. Telemetry pod if available, 10 Chaff, 10 Flares.

External Syllabus Support. One FW adversary and telemetry range if available. Appropriate air-to-air training area.

Crew. DACMI/PUI/CC/AO.

DACM-416

1.0 C,R E 2 UH-1N A

Goal. Introduce 2 v 2 escort operations against FW aircraft.

Requirement

(1) Conduct RW escort operations versus a FW adversary (2 v 2). Emphasize sound escort tactics and tactical maneuvering of the

assault aircraft during escort operations. Stress protection of the assault flight, crew coordination, positive aircraft control, lookout doctrine, common terminology, inter-aircraft coordination and mutual support.

(2) Discuss assault flight evasive tactics and escort responsibilities.

Performance Standards. Execute proper reactions to FW threat attacks.

Prerequisite. DACM-415.

Ordinance. TACTS pod if available, 10 Chaff, 10 Flares.

External Syllabus Support. Two FW adversary and 1 assault aircraft, if available, and telemetry range if available. Appropriate air-to-air training area.

Crew. DACMI/PUI/CC/AO.

6. Nuclear, Biological, and Chemical Warfare (NBC)

a. Purpose. To introduce the pilot to operations while wearing the aviator's NBC protective mask.

b. General. Flights in this stage will be flown to expand the capabilities of the aircrew in NBC operations.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Review appropriate section of UH-1N NTTP for information on the aviator's NBC protective mask prior to flight. The pilot will complete AR-5 familiarization lecture and aircraft egress with mask. Discuss capabilities and disadvantages of NBC protective mask, to include AR-5 emergency procedures. Review all MOPP conditions.

e. Flight and Simulator Event Training. (1 Sortie, 1.0 Hour).

NBC-420 1.0 C 1 UH-1N A/S

Goal. AR-5 protective mask introduction.

Requirement. PUI wears the aviator's protective mask during tactical flight profiles to include CALs and HIE approaches.

Performance Standards. Conduct simulator event per the NATOPS and UH-1N NTTP.

Prerequisite. None.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP (CSI)/PUI.

7. Carrier Qualification (CQ)

a. Purpose. To introduce day, NVD, and night unaided flight operations from a carrier deck or air capable ship.

b. General. Per applicable directives, IP will emphasize proper communication procedures, patterns, and aviation operations in the shipboard environment. PUI shall complete the FCLP stage prior to commencing this stage.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. CQ stage lectures (Squadron).

e. Flight and Simulator Event Training. (5 Sorties, 5.0 Hours/1 Simulator Period).

SCQ-430 1.5 C 1 UH-1N S N NS

Goal. Introduce day, night, and NVD shipboard procedures.

Requirement

(1) Discuss: shipboard environment/procedures, EPs, Alpha, Charlie, and Delta patterns, shipboard instrument procedures including TACAN, Carrier Controlled Approaches (CCA), marshals, lost comm procedures, sight picture, and landings to an L-Class amphibious ship.

(2) Demonstrate/introduce patterns, approaches, visual signals, communications, and landings to an L-Class amphibious ship.

(3) Conduct a minimum of 5 CQ landings of each type to an L-Class Amphibious ship.

Performance Standards. Per the UH-1N NATOPS and shipboard NATOPS manuals.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI/PUI.

CQ-431 1.0 C,R 1 UH-1N A

Goal. Introduce day FCLP operations.

Requirement

(1) Discuss air capable ships, shipboard specific crew coordination, LSE signals, emergency and ditching procedures, wind limitation charts, shipboard terminology, patterns, entry/exit procedures, HERO conditions, and shipboard airspace.

(2) Demonstrate/introduce patterns, sight picture, and landings to an FCLP deck.

(3) A minimum of 5 landings will be conducted.

(4) Review shipboard EPs and patterns.

Performance Standards. Per the UH-1N NATOPS and shipboard NATOPS manuals.

Prerequisite. TERF-211.

Ordinance. N/A.

External Syllabus Support. FCLP pad.

Crew. BIP/PUI/CC.

CQ-432

1.0 C,R 1 UH-1N A N NS

Goal. Introduce night and NVD FCLP operations.

Requirement. Discuss: instrument scan, night/NVD patterns, shipboard crew coordination, comfort level, NVD failures and emergency procedures, lighting considerations, vertigo and shipboard instrument procedures. Demonstrate/introduce: night aided/unaided FCLP patterns, approaches, and landings. Review communication procedures and visual signals. A minimum of 5 unaided and 5 aided landings will be conducted.

Performance Standards. Per the UH-1N NATOPS and shipboard NATOPS manuals.

Prerequisite. CQ-431.

Ordinance. N/A.

External Syllabus Support. Lighted/NVD compatible FCLP pad.

Crew. NSI/PUI/CC/AO.

CQ-433

1.0 C,R 1 UH-1N A

Goal. Conduct day shipboard landing qualification.

Requirement

(1) Discuss lost communication procedures. Discuss emergency procedures as related to shipboard environment.

(2) Introduce day shipboard operations.

(3) Review Alpha, Charlie and Delta patterns. Review shipboard instrument procedures.

(4) Conduct a minimum of 5 day shipboard landings. Conduct 1 precision and 1 non-precision approach if available. Conduct shipboard refueling if available.

Performance Standards. IAW UH-1N NATOPS.

Prerequisite. CQ-431.

Ordinance. N/A.

External Syllabus Support. Landing platform afloat.

Crew. BIP/PUI/CC.

CQ-434

1.0 C,R 1 UH-1N A NS

Goal. Conduct NVD shipboard landing qualification.

Requirement

(1) Discuss ship airspace. Discuss shipboard ordnance operations.

(2) Introduce NVD shipboard operations.

(3) Review Alpha, Charlie and Delta patterns. Review shipboard instrument procedures.

(4) Conduct a minimum of 5 NVD shipboard landings. Conduct 1 precision and 1 non-precision approach if available. Conduct shipboard refueling if available.

Performance Standards. Per UH-1N NATOPS.

Prerequisites. CQ-433.

Ordinance. N/A.

External Syllabus Support. Landing platform afloat.

Crew. NSI/PUI/CC/AO.

CQ-435

1.0 C,R E 1 UH-1N A N

Goal. Night unaided CQ introduction.

Requirement

(1) Discuss shipboard lighting. Discuss wind limitations.

(2) Introduce night shipboard operations.

(3) Review Alpha, Charlie, and Delta patterns. Review shipboard instrument procedures.

(4) Conduct a minimum of 5 night shipboard landings. Conduct 1 precision and 1 non-precision approach if available. Conduct shipboard refueling if available.

Performance Standards. IAW NATOPS.

Prerequisite. CQ-433.

Ordinance. N/A.

External Syllabus Support. Landing platform afloat.

Crew. NSI/PUI.

8. Mountain Area Training (MAT)

- a. Purpose. To conduct flight training in mountainous environments.
- b. General. Flights flown in this stage are designed to introduce the PUI to operations in a mountainous environment.
- c. Crew Requirements. As listed at the end of each event.
- d. Ground/Academic Training. Review appropriate sections of the UH-1N NATOPS and UH-1N NTTP.
- e. Flight and Simulator Event Training. (2 Sorties, 2.0 Hours).

MAT-450

1.0

C 1 UH-1N A

Goal. Introduce MAT to include HIE techniques.

Requirement

(1) Brief and discuss high altitude operations, loss of tail rotor effectiveness, turbulence, orographic lifting, and downdrafts.

(2) Perform 5 mountain area landings and 2 simulated HIE approaches in a mountain environment.

Performance Standards. Conduct mountain area landings per the UH-1N NATOPS and UH-1N NTTP.

Prerequisite. TERF-211.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI/CC.

MAT-451

1.0

C,R 1 UH-1N A NS

Goal. Introduce mountain area landings to include HIE techniques at night using NVDs.

Requirement. Review MAT-450.

Performance Standards. Conduct 5 mountain area landings and 2 HIE approaches IAW the UH-1N NATOPS, UH-1N NTTP and MAWTS-1 NVD Manual.

Prerequisite. MAT-450.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSI/PUI/CC/AO.

9. Tactical Air Coordinator Airborne [TAC(A)]

- a. Purpose. Introduce and refine TAC(A) procedures.
- b. General. At the completion of this stage, the PUI will demonstrate proficiency in the coordination of attack aircraft and multiple terminal controllers. At the completion of this stage, the PUI may be designated TAC(A) by the squadron commander (QUAL-625).
- c. Crew Requirements. As listed at the end of each event.
- d. Ground/Academic Training. Per the MAWTS-1 Course Catalog.
- e. Flight and Simulator Event Training. (1 Sortie, 1.0 Hour).

TAC-470

1.5

C,R 1 UH-1N A (NS)

Goal. Conduct TAC(A) procedures with multiple terminal controllers.

Requirement. Perform coordination of attack aircraft and multiple terminal controllers. Receive attack briefings from the FAC/FAC(A) and assign appropriate CAS aircraft. Coordinate target mark and control with the FAC/FAC(A). Manage assigned airspace and provide command and control system with essential elements of information.

Performance Standards. Be able to accurately copy immediate JTAR, coordinate timely CAS in response to immediate request, and to pass CAS aircraft BDA via the C³ system.

Prerequisite. QUAL-624, DESG-679.

Ordinance. N/A.

External Syllabus Support. Two CAS elements and 2 terminal controllers.

Crew. TAC(A)I (NSI)/PUI/CC (AO).

140. INSTRUCTOR UNDER TRAINING (IUT) FLIGHT/SIMULATOR/EVENT PERFORMANCE REQUIREMENTS

1. Purpose. To develop standardized IPs with the ability to teach flight skills requisite to qualification as a core plus pilot. UHC designation is required prior to starting this stage.

2. General. Upon completion of this phase of training the IUT may be designated a BIP, TERFI and WTO.

a. Completion of the BIP stage meets the requirements for the PUI to be designated a BIP. At the discretion of the squadron commanding officer a letter designating the IUT as a BIP shall be placed in the NATOPS jacket, APR and a tracking code of IDSG-680 shall be logged.

b. Completion of the TERFI stage meets the requirements for the PUI to be designated a TERFI. At the discretion of the squadron commanding officer a letter designating the IUT as a TERFI shall be placed in the NATOPS jacket, APR and a tracking code of IDSG-681 shall be logged.

c. Completion of the WTO stage meets the requirements for the IUT to be designated a WTO. At the discretion of the squadron commanding officer a letter designating the IUT as a WTO shall be placed in the NATOPS jacket, APR and a tracking code of IDSG-682 shall be logged.

d. All stages will be flown in the order listed. Prior to the completion of each stage of training, the IUT will be required to present a class from an applicable MAWTS-1 ASP lecture. Emphasis will be placed on error analysis, error correction, instructional technique, briefing and debriefing procedures.

3. Basic Instructor Pilot (BIP)

a. Purpose. To qualify the IUT to instruct basic FAM, INST, CQ and FORM.

b. General. IUT must be CQ complete to begin this stage of training. CQ qualification is not required for FRS BIP syllabus.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (4 Sorties, 6.5 Hours/1 Simulator Period, 1.5 Hours).

SBIP-500 1.5 E 1 UH-1N S

Goal. Emergency procedures standardization.

Requirement

(1) Discuss cockpit indications of all emergencies. Discuss this Manual.

(2) Review SFAM-105 stressing systems failures and emergencies. The IUT will demonstrate a thorough knowledge of aircraft systems and emergency procedures. Emphasize CRM during emergency procedures execution.

Performance Standards. IUT will correctly identify all emergency procedures and apply appropriate immediate action per NATOPS.

Prerequisite. DESG-631.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP (CSI)/IUT/(copilot if available).

BIP-501 1.5 E 1 UH-1N A (N)

Goal. Review all FAM stage maneuvers and FCLPs with emphasis on standardization per the UH-1N NATOPS, MDG, and LHA/LHD NATOPS.

Requirement

(1) Discuss instructional techniques.

(2) Demonstrate knowledge of preflight, local course rules and techniques of instruction for all familiarization maneuvers and shipboard operations. Emphasize shipboard approaches, patterns, landings, standardized maneuver descriptions, system failures, and emergencies. IUT will perform all FAM stage maneuvers. IUT will perform a minimum of 5 FCLPs.

Performance Standards. In performance of the maneuvers and FCLPs the IUT will be able to discuss proper parameters and techniques.

Prerequisites. DESG-631.

Ordinance. N/A.

External Syllabus Support. FCLP pad.

Crew. BIP/IUT.

BIP-502

1.5 E 1 UH-1N A (N)

Goal. IUT will demonstrate the ability to accurately identify and correct PUI BAW errors, tendencies, and procedural errors during FAM maneuvers.

Requirement. This flight shall be conducted at night if BIP-501 was flown in daylight.

(1) Discuss OPNAVINST 3710.7. IP will act as the PUI.

(2) Emphasize error detection and correction of airwork and procedure deficiencies.

Performance Standards. IUT will satisfactorily demonstrate the ability to recognize, analyze and correct all errors through demonstration or verbal commands.

Prerequisites. DESG-631.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/PUI/CC (AO).

BIP-503

1.5 E 1 UH-1N A/S (N)

Goal. IUT will demonstrate the ability to instruct in the instrument flight regime.

Requirement

(1) Discuss applicable instrument publications and squadron flight operations SOP.

(2) IP will act as PUI. IP will provide the IUT with an actual or notional instrument flight plan developed with intentional errors. A portion of the sortie will be conducted under positive control. IUT will satisfactorily demonstrate

the ability to execute, analyze and correct all standard instrument maneuvers under actual or simulated IFR conditions.

(3) Review IFR flight planning and enroute procedures. Conduct a minimum of 1 instrument approach.

Performance Standards. IUT will correctly identify all errors in a flight plan provided by the IP. IUT will ensure that the PUI maintains established BAW parameters.

Prerequisites. DESG-631.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP/IUT.

BIP-504

1.5 E 2 UH-1N A

Goal. IUT will demonstrate the ability to instruct formation flight.

Requirement

(1) Discuss instructor briefing and debriefing techniques.

(2) The IUT will brief and lead the flight. The IP will act as the PUI for a portion of the parade and tactical sequences. The IUT will demonstrate all formation stage maneuvers with emphasis on instructional technique, accurate maneuver description, formation signals, and parade/tactical formation maneuvering.

Performance Standards. IUT will properly perform all briefed maneuvers from both lead and wingman position per the UH-1 NATOPS, MDG, and UH-1N NTTP. IUT will be able to identify and correct abnormal parameters performed by the IP/PUI.

Prerequisites. DESG-631.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP and section leader/PUI/CC (AO).

BIP-505

1.0 E 1 UH-1N A

Goal. HIE/External Weight IUT.

Requirement

(1) Brief and discuss water insertion, paradrop, fastrope, rappelling, hoist operations, and the similarities between SPIE and externals.

(2) The IUT shall demonstrate HIE approaches, and if support assets are available, should perform the requirements of

HIE-400, HIE-401, HIE-402, HIE-403, HIE-404 or HIE-405 as appropriate.

Performance Standards. Conduct flight per the UH-1N NATOPS Manual, the UH-1N MDG, and the UH-1N NTTP.

Prerequisite. BIP-502.

Ordinance. N/A.

External Syllabus Support. HRST Master and ropers if available, external weight if available, and HST if available.

Crew. BIP/PUI/CC.

4. Terrain Flight Instructor (TERFI)

a. Purpose. To qualify the IUT as a TERF instructor.

b. General. IUT will be designated BIP and section leader prior to beginning TERFI training. IUT will demonstrate the ability to utilize MPS and appropriate tactical navigation systems. Upon completion of the TERF IUT stage, the IUT may be designated a TERFI by the squadron commander.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (2 Sorties, 3.0 Hours).

TERF-510

1.5

1 UH-1N A

Goal. Conduct all TERF maneuvers with emphasis on instructional technique.

Requirement

(1) Discuss: crew coordination, comfort level, map preparation, and low altitude emergencies emphasizing single engine operation.

(2) Demonstrate all TERF maneuvers.

(3) Review tactical decisions to fly TERF and threat considerations behind TERF profiles. Review all TERF maneuvers.

Performance Standards. Per the UH-1N NATOPS, MDG, and UH-1N NTTP.

Prerequisites. DESG-649, IDSG-680.

Ordinance. N/A.

External Syllabus Support. Approved TERF area.

Crew. TERFI/IUT/CC/AO.

TERF-5111.5R E 2 UH-1N A

Goal. IUT will conduct TERF navigation in the low level, contour and NOE profiles with emphasis on instructional technique.

Requirement. IUT will plan, brief, and lead the flight. IUT will fly from the seat opposite of that flown during TERF-510.

(1) Discuss TERF navigation techniques and procedures, CRM, comfort level, and the illusions of terrain flight.

(2) Demonstrate the use of the GPS system as a back-up NAVAID. The IUT will brief a TERF route with a minimum of 5 checkpoints. Emphasize tactical use of terrain to navigate to a specific objective area, and masking and unmasking profiles.

(3) Review boundary features including lateral limits and intermediate checkpoints.

Performance Standards. IUT will navigate in the low level, contour and NOE profile, remaining oriented within 200 meters, arriving at the final checkpoint within 1 minute of the planned time.

Prerequisites. DESG-649, IDSG-680.

Ordinance. N/A.

External Syllabus Support. Approved TERF area and certified TERF route.

Crew. TERFI/IUT/CC/AO.

5. Weapons Training Officer (WTO)

a. Purpose. To qualify the IUT as a WTO.

b. General. IUT will be designated a TERFI prior to beginning WTO training. The WTO is qualified to instruct all phases of flight except those requiring FAC(A)I, NSFI, NSI, DACMI, or WTI qualifications. As such, the WTO shall demonstrate a sound knowledge of all aircraft weapon systems, threat systems and current tactics, as well as all TTPs within the Core Skill Plus phase.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per MAWTS-1 Course Catalog.

e. Flight and Simulator Event Training. (2 Sorties, 3.0 Hours).

WTO-5201.52 UH-1N A (NS)

Goal. To qualify the IUT in day (night optional) gun and rocket delivery.

Requirement

- (1) Brief and discuss weapons preflight, arming/dearming, error analysis, use of the CA-513E Optical Reflex Sight, rocket delivery charts, and weapons sighting techniques.
- (2) Demonstrate the ability to instruct rocket and gun employment with emphasis on error analysis.
- (3) Conduct all methods of ordnance delivery to include hover, running, and diving fire.
- (4) Conduct ordnance delivery on scored range if available.

Performance Standards. Conduct flight per the UH-1N NTTP. IUT shall demonstrate ability to deliver ordnance within 100 mils of Mean Point of Impact (MPI).

Prerequisite. IDSG-681.

Ordnance. 7 2.75-inch rockets, 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 10 Chaff, 10 Flares. 500 7.62 mm M240 may be substituted for one of the guns if necessary.

External Syllabus Support. Scored aerial gunnery range if available.

Crew. WTO (NSI)/IUT/CC/AG.

WTO-521

1.5 R E 2+ UH-1N A (NS)

Goal. Tactical mission instruction.

Requirement

- (1) Plan, brief, and execute a tactical mission in a permissive to non-permissive environment using MCCRES/MEU (SOC) standards. Emphasize threat analysis and actions in the objective area. Utilize ordnance if available.
- (2) Evaluate IUT's ability to recognize, analyze, and correct nonstandard performance in the execution of 300-level tactical missions.

Performance Standards. Conduct flight per the UH-1N NTTP, UH-1N NATOPS, and applicable local SOPs.

Prerequisite. WTO-520.

Ordnance. If available, 7 2.75-inch rockets, 1500 7.62 mm GAU-17, 300 .50 Cal GAU-16, 10 Chaff, 10 Flares. 500 7.62 mm M240 can be substituted for one of the guns if necessary.

External Syllabus Support. Scored aerial gunnery range if available.

Crew. WTO (NSI)/IUT/CC/AG.

150. REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS

1. Purpose. To provide a vehicle for tracking codes associated with qualifications and designations.

2. General

a. E-coded flights are evaluation flights. E-coded flights in the 600-level phase may be logged in conjunction with any flight that completes its stage. For example, RQD-612 may be logged in conjunction with one of the flights in the following night 300-level stages: ESC, SWD, TAC, or FAC(A). However, CRP credit may be obtained by logging the appropriate training code(s) in the 200-400 level syllabus. Once the flight to attain the qualification/designation is complete, a letter from the squadron commanding officer awarding the qualification/designation shall be placed in the NATOPS and APR before that qualification/designation can be utilized.

b. After the commanding officer has designated the PUI in writing as a section lead or a division lead, the operations department shall log DESG-649 (section lead) and DESG-659 (division lead) respectively.

3. Ground Training. Per applicable directives.

RQRD-600 1.5 E 1 (UH-1N) A/S (N)

Goal. Conduct the annual instrument check.

Requirement. Successfully conduct the check per applicable directives.

Performance Standards. Per the NATOPS and Instrument Flight Manual.

Prerequisite. Per OPNAVINST 3710.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. BIP-IFBM (CSI)/PUI (QO).

RQRD-601 1.5 E 1 UH-1N (N)(NS)

Goal. Conduct annual NATOPS check.

Requirement. Successfully conduct the evaluation per applicable directives. Recommend that a portion of the NATOPS check be flown at night.

Performance Standards. Conduct flight per the UH-1N NATOPS Manual.

Prerequisite. Per applicable directives.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NI ANI (NSI reqr if PUI is not NSQ)/PUI.

RQRD-602

1.5

C, R E UH-1N S

Goal. Review aircraft emergency procedures and systems failures.

Requirement. Review emergency procedures knowledge, recognizing emergencies, applying appropriate procedures, and full/power recovery autorotations.

Performance Standards. Exhibit the ability to operate the aircraft under all emergency conditions.

Prerequisites. N/A.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CSI (BIP)/PUI.

QUAL-610E UH-1N A NS

Goal. Tracking Code for TERF qualification.

Requirement. Completion of TERF-211 meets the requirements for the PUI to be TERF qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as TERF qualified shall be placed in the NATOPS jacket and APR, and a tracking code of QUAL-610 shall be logged.

Prerequisite. See TERF-211.

QUAL-611E UH-1N A NS

Goal. Tracking Code for NSQ (HLL).

Requirement. Successfully complete the requirements of CAL-223. Completion of CAL-223 (and prerequisites) meets the requirements for the PUI to be NSQ (HLL) qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as NSQ (HLL) qualified shall be placed in the NATOPS jacket and APR, and a tracking code of RQRD-611 shall be logged.

Prerequisite. See CAL-223.

QUAL-612E UH-1N A NS

Goal. Tracking Code for NSQ (LLL).

Requirement. Completion of all ANSQ events meets the requirements for the PUI to be NSQ (LLL). At the discretion of the squadron commanding officer a letter assigning the PUI as ANSQ (LLL) qualified shall be placed in the NATOPS jacket and APR, and a tracking code of QUAL-612 shall be logged.

Prerequisite. See ANSQ-312.

QUAL-615E UH-1N A

Goal. Tracking Code for day Carrier Qualification (CQ).

Requirement. Successfully completing the requirements of CQ-433 meets the requirements for the PUI to be CQ qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as CQ qualified shall be placed in the NATOPS jacket and APR, and a tracking code of QUAL-615 shall be logged.

Prerequisite. See CQ-433.

QUAL-616E UH-1N A NS

Goal. Tracking Code for NVD Carrier Qualification (NVDCQ).

Requirement. Successfully completing the requirements of CQ-434 meets the requirements for the PUI to be NVDCQ. At the discretion of the squadron commanding officer a letter assigning the PUI as NVDCQ shall be placed in the NATOPS jacket and APR, and a tracking code of QUAL-616 shall be logged.

Prerequisite. See CQ-434.

QUAL-617E UH-1N A N

Goal. Tracking Code for night unaided Carrier Qualification (Night CQ).

Requirement. Successfully completing the requirements of CQ-435 meets the requirements for the PUI to be Night CQ qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as Night CQ qualified shall be placed in the NATOPS jacket and APR, and a tracking code of QUAL-617 shall be logged.

Prerequisite. See CQ-435.

QUAL-618E 2 UH-1N A

Goal. Tracking code for RWDACM.

Requirement. Completion of the RWDACM stage meets the requirements for the PUI to be RWDACM qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as RWDACM qualified shall be placed in the NATOPS jacket and APR, and a tracking code of QUAL-618 shall be logged.

Prerequisite. See DACM-413.

QUAL-619E UH-1N A

Goal. Tracking Code for DACM.

Requirement. Completion of the FWDACM stage meets the requirements for the PUI to be DACM qualified. At the

discretion of the squadron commanding officer a letter assigning the PUI as DACM qualified shall be placed in the NATOPS jacket and APR, and a tracking code of QUAL-619 shall be logged.

Prerequisite. See DACM-416.

QUAL-624

E UH-1N A (NS)

Goal. Tracking Code for FAC(A).

Requirement. Completion of the FAC(A) stage meets the requirements for the PUI to be FAC(A) qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as FAC(A) qualified shall be placed in the NATOPS jacket and APR, and a tracking code of QUAL-624 shall be logged.

Prerequisite. See FAC-343.

QUAL-625

1.5

E UH-1N A (NS)

Goal. Tactical Air Coordinator (Airborne) [TAC(A)] evaluation.

Requirement. PUI will plan, brief, and execute a TAC(A) mission. Flight will include appropriate coordination with MAGTF assets, TACC, DASC, FSCC, terminal controllers, and CAS aircraft. Code may be logged in conjunction with a TAC-470 flight.

Performance Standards. Accurately copy immediate JTAR. Coordinate timely CAS in response to immediate request. Pass CAS aircraft BDA via the C³ system.

Prerequisite. QUAL-624, DESG-679.

Ordinance. None.

External Syllabus Support. Two CAS elements and 2 terminal controllers.

Crew. TAC(A)I (NSI)/PUI/CC (AO).

DESG-630

E 1 UH-1N (N)(NS)

Goal. PQM Designation.

Requirement. Completion of the Core Skill Introduction stage meets the requirements for the PUI to be PQM. At the discretion of the squadron commanding officer a letter assigning the PUI as PQM shall be placed in the NATOPS jacket and APR, and a tracking code of DESG-630 shall be logged.

Prerequisite. See CSIX-181.

DESG-631E 1 UH-1N A (NS)

Goal. Tracking Code for Utility Helicopter Commander (UHC) Designation.

Requirement. Successfully complete the requirements of the 300-level Tactics stage. PUI will fly as wingman in a tactical mission.

Prerequisite. 300-level, ANSQ, SWD, ESC and TAC stages complete. HIE-403.

DESG-632E 1 UH-1N A

Goal. Tracking Code for Functional Check Pilot designation.

Requirement. Successfully complete the local requirements for designation by the commanding officer. This code shall be logged in conjunction with the appropriate flight that shall be flown in a PMC/FMC aircraft.

Prerequisite. None.

4. Section Leader

a. Purpose. To prepare and evaluate PUI's ability to plan, brief, and lead a section of H-1s.

b. General

(1) PUI shall conduct day and night workup sorties in order to develop section leadership. Mixed sections are authorized. Completion of the Section Leader Under Training (SLUT) syllabus meets the requirements for the PUI to be designated a section leader. At the discretion of the squadron commanding officer, a letter designating the pilot as section leader shall be placed in the NATOPS jacket and APR, and a tracking code of DESG-649 shall be logged. The section leader evaluation will use ordnance. Re-designation will require successful completion of the evaluation event (649) only. For the evaluation flight, the PUI will fly any of the previously flown Core Skill Basic or Core Skill Advanced sorties in conjunction with the 649 tracking code.

(2) After the commanding officer designates the PUI in writing as a section lead and to facilitate automated tracking (SARA), the operations department is required to log DESG-649 (section lead) for the newly designated PUI. This code shall not be logged until the designation letter resides in the NATOPS and APR.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. The PUI shall demonstrate familiarity with appropriate chapters of the UH-1N NTTP and local SOPs.

e. Flight and Simulator Event Training. (3 Sorties, 4.5 Hours).

DESG-640E 2 UH-1N A

Goal. Tracking code for day section leader training.

Requirement. Plan, brief, lead and debrief a section. The PUI will fly any of the previously flown Core Skill Basic or Combat Qualified sorties in conjunction with the 640 tracking code.

Performance Standards. See appropriate syllabus event.

Prerequisite. DESG-631.

Ordinance. Optional.

External Syllabus Support. See appropriate syllabus event.

Crew. As listed at the end of each event.

DESG-641

E 2 UH-1N A NS

Goal. Tracking Code for night section leader training.

Requirement. Plan, brief, lead and debrief a section. The PUI will fly any of the previously flown Core Skill Basic or Core Skill Advanced sorties in conjunction with the 641 tracking code. Safe completion of the applicable mission as a section leader.

Prerequisites. DESG-631.

Ordinance. Optional.

External Syllabus Support. See appropriate syllabus event.

Crew. As listed at the end of each event, NSI required.

DESG-649

E 2 UH-1N A (NS)

Goal. Tracking Code for section leader evaluation.

Requirement. Plan, brief, lead and debrief a section on a day or night tactical mission utilizing ordnance. The PUI will fly any of the previously flown Core Skill Basic or Core Skill Advanced sorties in conjunction with the 649 tracking code.

Performance Standards. Safe completion of the applicable mission as a section leader.

Prerequisites. DESG-640, DESG-641.

Ordinance. See the appropriate syllabus event for specific ordnance loads.

External Syllabus Support. See appropriate syllabus event.

Crew. As listed at the end of each event. NSI required if flown at night.

5. Division Leader

a. Purpose. To prepare and evaluate PUI's ability to plan, brief, and lead a division of H-1s.

b. General

(1) PUI shall conduct day and night workup sorties in order to develop division leadership. Mixed divisions are authorized. Completion of the DLUT syllabus meets the requirements for the PUI to be designated a division leader. At the discretion of the squadron commanding officer, a letter designating the pilot as division leader shall be placed in the NATOPS jacket, APR and a tracking code of DESG-659 shall be logged. The division leader evaluation sortie will use ordnance. Minimum qualifications are per NATOPS. Re-designation will require successful completion of the evaluation event (659) only. For the evaluation flight the PUI will fly any of the previously flown Core Skill Basic or Core Skill Advanced sorties in conjunction with the 659 tracking code.

(2) After the commanding officer designates a pilot in writing as a division lead and to facilitate automated tracking (SARA), the operations department is required to log DESG-659 (division lead) for the newly designated pilot. This code shall not be logged until the designation letter resides in the NATOPS and APR.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. The PUI shall demonstrate familiarity with appropriate chapters of the UH-1N NTTP and local SOPs.

e. Flight and Simulator Event Training. (3 Sorties, 4.5 Hours).

DESG-650E 3+ UH-1N A

Goal. Tracking code for day division leader training.

Requirement. Plan, brief, lead and debrief a division. The PUI will fly any of the previously flown Core Skill Basic or Core Skill Advanced sorties in conjunction with the 650 tracking code.

Performance Standards. Safe completion of the applicable mission as a division leader.

Prerequisites. DESG-649.

Ordnance. Optional.

External Syllabus Support. See appropriate syllabus event.

Crew. See appropriate syllabus event. The instructor must be a division leader and NSI.

DESG-651E 3+ UH-1N A NS

Goal. Tracking Code for night division leader training.

Requirement. Plan, brief, lead and debrief a division. The PUI will fly any of the previously flown Core Skill Basic or Core Skill Advanced sorties in conjunction with the 651 tracking code.

Performance Standards. Safe completion of the applicable mission as a division leader.

Prerequisites. DESG-649.

Ordnance. Optional.

External Syllabus Support. See appropriate syllabus event.

Crew. See appropriate syllabus event. The instructor must be a division leader and NSI.

DESG-659

E 3+ UH-1N A (NS)

Goal. Tracking code for division leader evaluation.

Requirement. Plan, brief, lead and debrief a division on a day or night tactical mission using ordnance. The PUI will fly any of the previously flown Core Skill Basic or Core Skill Advanced sorties in conjunction with the 659 tracking code.

Performance Standards. Safe completion of the applicable mission as a division leader.

Prerequisites. DESG-650, DESG-651.

Ordnance. See appropriate syllabus event, but ordnance is required.

External Syllabus Support. See appropriate syllabus event.

Crew. See appropriate syllabus event. The instructor must be a division leader and NSI.

6. Flight Leader

a. Purpose. To prepare and evaluate PUI's ability to plan, brief, and lead a flight of at least 5 helicopters.

b. General. Flight leader is designated in recognition of experience, demonstrated flight leadership ability, and judgment. Work-up for this phase shall consist of completion of the division leader syllabus. Completion of DESG-669 meets the requirements for the PUI to be designated a flight leader. At the discretion of the squadron commanding officer, a letter designating the pilot as flight leader shall be placed in the NATOPS jacket, APR and a tracking code of DESG-669 shall be logged.

c. Crew Requirements. Work-up sorties shall be flown per the division leader syllabus. The DESG-669 evaluation sortie must be flown with a designated flight leader.

d. Ground/Academic Training. The PUI shall demonstrate familiarity with OAS, assault support operations, MACCS, and MAGTF integration.

e. Flight and Simulator Event Training. Command specific.

DESG-669

E 5+ H-1 A (NS)

Goal. Conduct a flight leader check.

Requirement. Plan, brief, lead and debrief a sortie on a day or night tactical mission. The PUI will fly any of the previously flown sorties in conjunction with the 669 tracking code.

Performance Standards. Safe completion of the applicable mission as a flight leader.

Prerequisites. DESG-659.

Ordinance. Optional.

External Syllabus Support. See appropriate syllabus event.

Crew. See appropriate syllabus event.

7. Air Mission Commander (AMC)

a. Purpose. To prepare and evaluate PUI's ability to plan, brief, and lead an assault support or OAS mission per MCCRES/MEU (SOC) standards.

b. General. AMC is designated in recognition of experience, demonstrated flight leadership ability, and judgment. Work-up for this phase shall consist of completion of the division leader syllabus. Completion of DESG-679 meets the requirements for the PUI to be designated an AMC. At the discretion of the squadron commanding officer, a letter designating the PUI as an AMC shall be placed in the NATOPS jacket and APR, and a tracking code of DESG-679 shall be logged.

c. Crew Requirements. The DESG-679 evaluation must be evaluated by an AMC. There is no requirement for the PUI to conduct aircrew duties during the evaluation.

d. Ground/Academic Training. The PUI shall demonstrate familiarity with OAS, assault support operations, MACCS, and MAGTF integration.

e. Flight and Simulator Event Training. None.

DESG-679

E (NS)

Goal. Conduct an AMC check.

Requirement. Plan, brief, and debrief a sortie as AMC.

Performance Standards. Safe completion of the applicable mission as AMC.

Prerequisite. DESG-659.

Ordinance. Optional.

External Syllabus Support. Assault support aircraft, GCE and MACCS agencies as required.

Crew. None.

IDSG-680

E UH-1N A

Goal. Tracking code for Basic Instructor Pilot (BIP) designation.

Requirement. Completion of the BIP stage meets the requirements for the IUT to be designated a BIP. At the discretion of the squadron commanding officer, a letter designating the pilot as a BIP shall be placed in the NATOPS jacket and APR, and a tracking code of IDSG-680 shall be logged.

Performance Standards. See appropriate BIP event.

Prerequisite. This code will be logged in conjunction with the last BIP-500 series that is flown.

Ordinance. None.

External Syllabus Support. See BIP-503, BIP-504, BIP-505, or BIP-506.

Crew. See appropriate syllabus event.

IDSG-681

E UH-1N A

Goal. Tracking code for Terrain Flight Instructor (TERFI) designation.

Requirement. Completion of the TERFI stage meets the requirements for the IUT to be designated a TERFI. At the discretion of the squadron commanding officer, a letter designating the pilot as a TERFI shall be placed in the NATOPS jacket and APR, and a tracking code of IDSG-681 shall be logged.

Performance Standards. See appropriate TERFI sortie.

Prerequisites. This code will be logged in conjunction with the last TERF-500 sortie that is flown.

Ordinance. None.

External Syllabus Support. None.

Crew. See appropriate syllabus sortie.

IDSG-682

E 2 UH-1N A (NS)

Goal. Tracking code for Weapons Training Officer (WTO) designation.

Requirement. Completion of the WTO stage meets the requirements for the IUT to be designated a WTO. At the discretion of the squadron commanding officer a letter designating the pilot as a WTO shall be placed in the NATOPS jacket and APR, and a tracking code of IDSG-682 shall be logged.

Performance Standards. See appropriate WTO sortie.

Prerequisite. This code will be logged in conjunction with the last WTO-500 series sortie that is flown.

Ordinance. None.

External Syllabus Support. None.

Crew. See appropriate syllabus sortie.

IDSG-683

E UH-1 A (NS)

Goal. Tracking code for FAC(A)I designation.

Requirement. Successfully complete the requirements of FAC(A)I. After successfully completing the appropriate MAWTS-1 Course Catalog syllabus and at the discretion of the squadron commanding officer, a letter designating the pilot as a FAC(A)I shall be placed in the NATOPS jacket and APR, and a tracking code of IDSG-683 shall be logged.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. IAW MAWTS-1 Course Catalog requirements.

Ordnance. See MAWTS-1 Course Catalog.

External Syllabus Support. See MAWTS-1 Course Catalog.

Crew. See MAWTS-1 Course Catalog.

IDSG-688

2 E UH-1N A

Goal. Tracking Code for DACMI designation.

Requirement. Successfully complete the requirements of DACMI. After successfully completing the appropriate MAWTS-1 Course Catalog syllabus and at the discretion of the squadron commanding officer, a letter designating the pilot as a DACMI shall be placed in the NATOPS jacket and APR, and a tracking code of IDSG-688 shall be logged.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. Per MAWTS-1 Course Catalog requirements.

Ordnance. See MAWTS-1 Course Catalog.

External Syllabus Support. See MAWTS-1 Course Catalog.

Crew. See MAWTS-1 Course Catalog.

IDSG-689

E UH-1N A (NS)

Goal. Tracking Code for TAC(A)I designation.

Requirement. Successfully complete the requirements of TAC(A)I. This code shall be logged in conjunction with the appropriate MAWTS-1 Course Catalog syllabus event.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. Per MAWTS-1 Course Catalog requirements.

Ordnance. See MAWTS-1 Course Catalog.

External Syllabus Support. See MAWTS-1 Course Catalog.

Crew. See MAWTS-1 Course Catalog.

IDSG-694

E UH-1N A NS

Goal. Tracking Code for NSFII designation.

Requirement. Successfully complete the requirements of NSFII. After successfully completing the appropriate MAWTS-1 Course Catalog syllabus and at the discretion of the squadron commanding officer, a letter designating the pilot as an NSFII shall be placed in the NATOPS jacket and APR, and a tracking code of IDSG-694 shall be logged.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. Per MAWTS-1 Course Catalog requirements.

Ordnance. See MAWTS-1 Course Catalog.

External Syllabus Support. See MAWTS-1 Course Catalog.

Crew. See MAWTS-1 Course Catalog.

IDSG-695

E UH-1N A NS

Goal. Tracking Code for NSSI designation.

Requirement. Successfully complete the requirements of NSSI. This code shall be logged in conjunction with the appropriate MAWTS-1 Course Catalog syllabus event.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. Per MAWTS-1 Course Catalog requirements.

Ordnance. See MAWTS-1 Course Catalog.

External Syllabus Support. See MAWTS-1 Course Catalog.

Crew. See MAWTS-1 Course Catalog.

IDSG-696

E UH-1 A NS

Goal. Tracking Code for NSI designation.

Requirement. Successfully complete the requirements of NSI. After successfully completing the appropriate MAWTS-1 Course Catalog syllabus and at the discretion of the squadron commanding officer, a letter designating the pilot as an NSI shall be placed in the NATOPS jacket and APR, and a tracking code of IDSG-696 shall be logged.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. IAW MAWTS-1 Course Catalog requirements.

Ordinance. See MAWTS-1 Course Catalog.

External Syllabus Support. See MAWTS-1 Course Catalog.

Crew. See MAWTS-1 Course Catalog.

IDSG-699

E UH-1N A (NS)

Goal. Tracking code for WTI designation.

Requirement. Successfully complete the requirements of WTI. This code shall be logged in conjunction with the appropriate MAWTS-1 Course Catalog syllabus event.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. Per MAWTS-1 Course Catalog requirements.

Ordinance. See MAWTS-1 Course Catalog.

External Syllabus Support. See MAWTS-1 Course Catalog.

Crew. See MAWTS-1 Course Catalog.

160. ORDNANCE REQUIREMENTS

| | INITIAL PILOT(1) | REFRESHER PILOT(2) | PROFICIENT PILOT(3) |
|---|---------------------|-----------------------|------------------------|
| 2.75" RKTS - HE/INERT | 56 | 28 | 42 |
| 2.75" RKTS - WP/RP | 28 | 14 | 21 |
| 2.75" RKTS - ILLUM | 7 | 7 | 7 |
| 7.62MM - GAU-17 | 34,500 | 12,000 | 19,500 |
| .50 CAL - GAU-16 | 6,200 | 2,100 | 3,500 |
| 7.62MM - M-240 | 7,200 | 2,800 | 4,400 |
| CHAFF | 340 | 120 | 240 |
| FLARES | 400 | 180 | 300 |
| NUMBER OF SQDN PILOTS/CATEGORY(4) | 7 | 8 | 8 |
| GENERAL: IN THESE CALCULATIONS ORDNANCE IS INCLUDED ON ORDNANCE OPTIONAL FLIGHTS. REQUIREMENTS ARE PER PILOT. ASSUMPTION IS THAT INITIAL/REFRESHER SYLLABUS MAY BE COMPLETED IN 1 YEAR. <ol style="list-style-type: none"> 1. INITIAL PILOTS SHALL FLY ALL 200 AND 300-LEVEL EVENTS. 2. REFRESHER PILOTS SHALL FLY ALL "R" CODED 200 AND 300-LEVEL EVENTS. 3. PROFICIENT PILOTS AS DEFINED BY THE CORE SKILL PROFICIENCY TABLE IN PARAGRAPH 4 ON PAGE 1-6. 4. BASED ON A FULL HMLA T/O OF 23 UH PILOTS, WITH THE ASSUMPTION THAT ROUGHLY 1/3 FALL INTO EACH CATEGORY. | | | |

| ANNUAL SQUADRON REQUIREMENTS | | | | |
|------------------------------|----------------------|------------------------|-------------------------|-----------------------------|
| | INITIAL PILOT x 7 | REFRESHER PILOT x 8 | PROFICIENT PILOT x 8 | ANNUAL SQUADRON TOTAL |
| 2.75" RKTS - HE/INERT | 392 | 224 | 336 | 952 |
| 2.75" RKTS - WP/RP | 196 | 98 | 168 | 462 |
| 2.75" RKTS - ILLUM | 49 | 56 | 56 | 161 |
| 7.62MM - GAU-17 | 241,500 | 84,000 | 156,000 | 481,500 |
| .50 CAL - GAU-16 | 43,400 | 16,800 | 28,000 | 88,200 |
| 7.62MM - M-240 | 50,400 | 22,400 | 35,200 | 108,000 |
| CHAFF | 2,380 | 960 | 1920 | 5,260 |
| FLARES | 2,800 | 1440 | 2400 | 6,640 |

| CORE SKILL INTRODUCTION PHASE | | | | | | | | | | | | | |
|-------------------------------|----------|---------|---------|----------------|------|---|---|---|---|-----|----|------------|-------|
| STAGE | FLT CODE | FLT HRS | SIM HRS | REFLY INTERVAL | CRP | C | R | M | E | N | NS | A/C OR SIM | # A/C |
| FAM | 00 | | | | | X | X | | X | | | STATIC | |
| FAM | 000 | | | | | X | X | | X | | | STATIC | |
| SFAM | 100 | | 1.5 | * | 0.5 | X | X | X | X | | | S | |
| FAM | 101 | 1.5 | | * | 1.0 | X | | | X | | | A | 1 |
| FAM | 102 | 1.5 | | * | 1.0 | | | | X | | | A | 1 |
| FAM | 103 | 1.5 | | * | 1.0 | X | | | X | | | A | 1 |
| FAM | 104 | 1.5 | | * | 1.0 | X | | | X | | | A | 1 |
| SFAM | 105 | | 1.5 | * | 0.75 | X | X | X | X | | | S | |
| FAM | 106 | 2.0 | | * | 1.0 | X | X | X | X | | | A | 1 |
| FAM | 107 | 2.0 | | * | 1.0 | X | | | X | | | A | 1 |
| FAM | 108 | 2.0 | | * | 1.0 | | | | X | | | A | 1 |
| SFAM | 111 | | 1.5 | * | 0.75 | X | X | | X | N | | S | |
| FAM | 112 | 1.5 | | * | 1.0 | | | | X | N | | A | 1 |
| FAM | 113 | 1.5 | | * | 1.0 | X | X | X | X | N | | A | 1 |
| SFAM | 114 | | 1.5 | * | 0.75 | X | | | X | | NS | S | |
| FAM | 115 | 1.5 | | * | 1.0 | X | X | X | X | | NS | A | 1 |
| FAM | 118 | 2.0 | | * | 1.0 | X | X | X | X | | | A | 1 |
| SINST | 120 | | 1.5 | * | 0.75 | X | | | X | (N) | | S | |
| SINST | 121 | | 1.5 | * | 0.75 | X | X | X | X | (N) | | S | |
| SINST | 122 | | 1.5 | * | 0.75 | X | X | | X | (N) | | S | |
| INST | 123 | 1.5 | | * | 1.0 | | | | X | (N) | | A | 1 |
| INST | 124 | 2.0 | | * | 1.0 | X | X | X | X | (N) | | A | 1 |
| INST | 125 | 2.0 | | * | 1.0 | X | X | X | X | (N) | | A/S | 1 |
| FORM | 130 | 2.0 | | * | 1.0 | X | | | X | | | A | 2 |
| FORM | 131 | 1.5 | | * | 1.0 | X | | | X | | | A | 2 |
| FORM | 132 | 2.0 | | * | 1.0 | X | | | X | | NS | A | 2 |
| TERF | 140 | 1.5 | | * | 1.0 | X | X | | X | | | A | 1 |
| TERF | 142 | 1.5 | | * | 1.0 | X | | | X | | NS | A | 1 |
| NAV | 150 | 1.5 | | * | 1.0 | | | | X | | | A | 1 |
| NAV | 151 | 1.5 | | * | 1.0 | | | | X | | | A | 2 |
| NAV | 152 | 1.5 | | * | 1.0 | | | | X | | NS | A | 1 |
| SSWD | 160 | | 1.5 | * | 0.75 | X | X | X | X | | | S | |
| SWD | 161 | 1.5 | | * | 1.0 | X | | | X | | | A | 2 |
| CAL | 170 | 1.5 | | * | 1.0 | X | | | X | | | A | 1 |
| CAL | 171 | 1.5 | | * | 1.0 | X | X | | X | | | A | 1 |
| CAL | 172 | 1.5 | | * | 1.0 | X | X | X | X | | NS | A | 1 |
| EXT | 175 | 1.5 | | * | 1.0 | X | | | X | | | A | 1 |
| SCSIX | 180 | | 1.5 | * | 0.75 | X | X | X | X | | | S | |
| CSIX | 181 | 2.0 | | * | 1.5 | X | X | X | X | | | A | 1 |
| Sub Total 100 | | 46.5 | 13.5 | | 35.0 | | | | | | | | |
| CRP Pre 100 | | | | | 25.0 | | | | | | | | |
| 100 Level Total | | 46.5 | 13.5 | | 60.0 | | | | | | | | |

Figure 1-2.--MOS 7563 Refly Interval, Combat Readiness Percentage.

| CORE SKILL BASIC PHASE | | | | | | | | | | | | |
|------------------------|------|------------|------------|-------------------|--------------|---|---|---|---|------|---------------|----------|
| STAGE | CODE | FLT HRS | SIM HRS | REFLY INTERVAL | CRP VALUE | C | R | E | N | NS | A/C OR SIM | # A/C |
| TERF | 210 | 2.0 | | 90 | 1.0 | X | | | | | A | 2 |
| TERF | 211 | 2.0 | | 90 | 1.0 | X | X | X | | NS | A | 2 |
| NVD | 215 | | | * | 0.5 | X | | | | NS | STATIC | 1 |
| SNVD | 216 | | 1.5 | * | 0.5 | X | | | | NS | S | |
| CAL | 220 | 1.5 | | 365 | 0.5 | X | | | | | A | 2 |
| CAL | 221 | 1.5 | | 365 | 1.0 | X | | | | NS | A | 2 |
| CAL | 222 | 1.5 | | 180 | 0.5 | X | X | | | | A | 2 |
| CAL | 223 | 1.5 | | 365 | 1.0 | X | X | X | | NS | A | 2 |
| REC | 230 | 1.5 | | 365 | 0.5 | X | X | | | (NS) | A | 2 |
| REC | 231 | 1.5 | | 365 | 0.5 | X | | | | NS | A | 1 |
| SSWD | 240 | | 1.5 | * | 0.5 | X | | | | | S | |
| SWD | 241 | 1.5 | | 180 | 1.0 | | | | | | A | 1 |
| SWD | 242 | 1.5 | | 180 | 1.0 | | | | | NS | A | 1 |
| SWD | 243 | 1.5 | | 180 | 1.0 | X | X | | | | A | 2 |
| SWD | 244 | 1.5 | | 180 | 1.0 | X | X | | | NS | A | 2 |
| ESC | 250 | 1.5 | | 365 | 0.5 | X | | | | | A | 2 |
| ESC | 251 | 1.5 | | 365 | 0.5 | X | X | | | NS | A | 2 |
| ESC | 252 | 1.5 | | 365 | 0.5 | X | X | | | (NS) | A | 2 |
| TAC | 260 | 1.5 | | 365 | 1.0 | X | | | | (NS) | A | 1 |
| TAC | 261 | 1.5 | | 365 | 1.0 | X | | | | (NS) | A | 2 |
| Sub Total 200 | | 28.5 | 3.0 | | 15.0 | | | | | | | |
| Total 100 | | 46.5 | 13.5 | | 60.0 | | | | | | | |
| Total 100 & 200 | | 75.0 | 16.5 | | 75.0 | | | | | | | |

Figure 1-2.--MOS 7563 Refly Interval, Combat Readiness Percentage--Continued.

| CORE SKILL ADVANCED PHASE | | | | | | | | | | | | |
|---------------------------|------|------------|------------|-------------------|--------------|---|---|---|---|------|---------------|----------|
| STAGE | CODE | FLT HRS | SIM HRS | REFLY INTERVAL | CRP VALUE | C | R | E | N | NS | A/C OR SIM | # A/C |
| SEW | 300 | | 1.5 | * | 1.0 | X | | | | | S | |
| EW | 301 | 2.0 | | 365 | 1.0 | X | X | | | | A | 1 |
| SANSQ | 310 | | 1.5 | 365 | 0.5 | X | | | | NS | S | |
| ANSQ | 311 | 2.0 | | 180 | 2.0 | X | | | | NS | A | 1 |
| ANSQ | 312 | 1.5 | | 180 | 2.0 | X | X | | | NS | A | 2 |
| ANSQ | 313 | 1.5 | | 180 | 2.0 | X | X | X | | NS | A | 2 |
| TAC | 320 | 1.5 | | 180 | 1.5 | | | | | NS | A | 1 |
| TAC | 321 | 1.5 | | 180 | 1.5 | X | X | | | NS | A | 2 |
| TAC | 322 | 1.5 | | 365 | 1.5 | X | | | | NS | A | 2 |
| TAC | 323 | 1.5 | | 365 | 1.5 | X | | | | (NS) | A | 2 |
| TAC | 324 | 1.5 | | 365 | 1.5 | X | X | | | NS | A | 2 |
| TAC | 325 | 1.5 | | 365 | 1.5 | X | X | | | NS | A | 2 |
| FAC | 340 | 1.5 | | 365 | 0.5 | X | | | | (NS) | A | 1 |
| FAC | 341 | 2.0 | | 365 | 0.5 | X | X | | | | A | 2 |
| FAC | 342 | 2.0 | | 365 | 0.5 | X | X | | | NS | A | 2 |
| FAC | 343 | 2.0 | | 365 | 1.0 | X | X | X | | (NS) | A | 2 |
| Sub Total 300 | | 25.5 | 3.0 | | 20.0 | | | | | | | |
| Total 100 & 200 | | 75.0 | 16.5 | | 75.0 | | | | | | | |
| Total 100, 200 & 300 | | 100.5 | 19.5 | | 95.0 | | | | | | | |

Figure 1-2.--MOS 7563 Refly Interval, Combat Readiness Percentage--Continued.

| CORE SKILL PLUS PHASE | | | | | | | | | | | | |
|-----------------------------|------|------------|------------|-------------------|--------------|---|---|---|---|------|---------------|----------|
| STAGE | CODE | FLT HRS | SIM HRS | REFLY INTERVAL | CRP VALUE | C | R | E | N | NS | A/C OR SIM | # A/C |
| HIE | 400 | 1.0 | | 365 | 0.2 | X | | | | (NS) | A | 1 |
| HIE | 401 | 1.0 | | 365 | 0.2 | X | | | | (NS) | A | 1 |
| HIE | 402 | 1.0 | | 365 | 0.2 | X | X | | | | A | 1 |
| HIE | 403 | 1.0 | | 365 | 0.2 | X | | | | | A | 1 |
| HIE | 404 | 1.0 | | 365 | 0.2 | X | | | | | A | 1 |
| HIE | 405 | 1.0 | | 365 | 0.2 | X | | | | | A | 1 |
| HIE | 406 | 1.0 | | 365 | 0.2 | X | X | | | NS | A | 1 |
| DACM | 410 | 1.5 | | 365 | 0.2 | X | | | | | A | 2 |
| DACM | 411 | 1.0 | | 365 | 0.2 | X | X | X | | | A | 1 |
| DACM | 412 | 1.0 | | 365 | 0.2 | X | X | | | | A | 2 |
| DACM | 413 | 2.0 | | 365 | 0.2 | X | | X | | | A | 2 |
| DACM | 414 | 1.0 | | 365 | 0.2 | X | X | | | | A | 1 |
| DACM | 415 | 1.0 | | 365 | 0.2 | X | | | | | A | 2 |
| DACM | 416 | 1.0 | | 365 | 0.2 | X | X | X | | | A | 2 |
| NBC | 420 | 1.0 | | 365 | 0.3 | X | | | | | A/S | |
| SCQ | 430 | | 1.5 | * | 0.2 | X | | | N | NS | S | |
| CQ | 431 | 1.0 | | 365 | 0.2 | X | X | | | | A | 1 |
| CQ | 432 | 1.0 | | 365 | 0.2 | X | X | | N | NS | A | 1 |
| CQ | 433 | 1.0 | | 365 | 0.2 | X | X | | | | A | 1 |
| CQ | 434 | 1.0 | | 365 | 0.2 | X | X | | | NS | A | 1 |
| CQ | 435 | 1.0 | | 365 | 0.2 | X | X | X | N | | A | 1 |
| MAT | 450 | 1.0 | | 365 | 0.2 | X | | | | | A | 1 |
| MAT | 451 | 1.0 | | 365 | 0.2 | X | X | | | NS | A | 1 |
| TAC | 470 | 1.5 | | 365 | 0.3 | X | X | | | (NS) | A | 1 |
| Sub Total 400 | | 21.0 | 1.5 | | 5.0 | | | | | | | |
| Total 100, 200, & 300 | | 100.5 | 19.5 | | 95.0 | | | | | | | |
| Total 100, 200, 300, 400 | | 121.5 | 21.0 | | 100.0 | | | | | | | |

Figure 1-2.--MOS 7563 Refly Interval, Combat Readiness Percentage--Continued.

| INSTRUCTOR TRAINING PHASE | | | | | | | | | | | | |
|--------------------------------------|------|------------|------------|-------------------|--------------|---|---|---|-----|------|---------------|----------|
| STAGE | CODE | FLT HRS | SIM HRS | REFLY INTERVAL | CRP VALUE | C | R | E | N | NS | A/C OR SIM | # A/C |
| SBIP | 500 | | 1.5 | * | | | | X | | | S | |
| BIP | 501 | 1.5 | | * | | | | X | (N) | | A | 1 |
| BIP | 502 | 1.5 | | * | | | | X | (N) | | A | 1 |
| BIP | 503 | 1.5 | | * | | | | X | (N) | | A/S | 1 |
| BIP | 504 | 1.5 | | * | | | | X | | | A | 2 |
| BIP | 505 | 1.0 | | * | | | | X | | | A | 1 |
| TERF | 510 | 1.5 | | * | | | | | | | A | 1 |
| TERF | 511 | 1.5 | | * | | | X | X | | | A | 2 |
| WTO | 520 | 1.5 | | * | | | | | | (NS) | A | 2 |
| WTO | 521 | 1.5 | | * | | | X | X | | (NS) | A | 2+ |
| Sub Total 500 | | 13.0 | 1.5 | | 0.0 | | | | | | | |
| Total 100, 200, 300, & 400 | | 121.5 | 21.0 | | 100.0 | | | | | | | |
| Total 100, 200, 300, 400 & 500 | | 134.5 | 22.5 | | 100.0 | | | | | | | |

Figure 1-2.--MOS 7563 Refly Interval, Combat Readiness Percentage--Continued.

| REQUIREMENTS, QUALIFICATIONS, DESIGNATIONS | | | | | | | | | | | |
|--|------|------------|------------|--------------|-------|---|-----|------|------------------|----------|------------------|
| STAGE | CODE | FLT HRS | SIM HRS | REFLY INT | TRACK | E | N | NS | A/C OR SIM | # A/C | NOTES |
| RQRD | 600 | 1.5 | | 365 | | X | (N) | | A/S | 1 | INST CHECK |
| RQRD | 601 | 1.5 | | 365 | | X | (N) | (NS) | A | 1 | NATOPS CHECK/PQM |
| RQRD | 602 | | 1.5 | 180 | | X | | | S | 1 | EP SIM, C, R |
| QUAL | 610 | | | * | X | X | | NS | A | 1 | TERF QUAL |
| QUAL | 611 | | | * | X | X | | NS | A | 1 | NSQ(HLL) QUAL |
| QUAL | 612 | | | * | X | X | | NS | A | 1 | NSQ(LL) QUAL |
| QUAL | 615 | | | * | X | X | | | A | 1 | CQ QUAL |
| QUAL | 616 | | | * | X | X | | NS | A | 1 | CQ AIDED QUAL |
| QUAL | 617 | | | * | X | X | N | | A | 1 | CQ UNAIDED QUAL |
| QUAL | 618 | | | * | X | X | | | A | 2 | RWDACM QUAL |
| QUAL | 619 | | | * | X | X | | | A | 2 | DACM QUAL |
| QUAL | 624 | | | * | X | X | | (NS) | A | 1 | FAC(A) QUAL |
| QUAL | 625 | 1.5 | | * | X | X | | (NS) | A | 1 | TAC(A) QUAL |
| DESG | 630 | | | * | X | X | (N) | (NS) | A | 1 | PQM |
| DESG | 631 | | | * | X | X | | (NS) | A | 1 | UHC |
| DESG | 632 | | | * | X | X | | | A | 1 | FCP |
| DESG | 640 | | | * | X | X | | | A | 2 | DAY SLUT |
| DESG | 641 | | | * | X | X | | NS | A | 2 | NIGHT SLUT |
| DESG | 649 | | | * | X | X | | (NS) | A | 2 | SECT LEADER |
| DESG | 650 | | | * | X | X | | | A | 3+ | DAY DLUT |
| DESG | 651 | | | * | X | X | | NS | A | 3+ | NIGHT DLUT |
| DESG | 659 | | | * | X | X | | (NS) | A | 3+ | DIV LEADER |
| DESG | 669 | | | * | X | X | | (NS) | A | 5+ | FLIGHT LEADER |
| DESG | 679 | | | * | X | X | | (NS) | A | | AMC/ASC(A) |
| IDSG | 680 | | | * | X | X | | | A | 1 | BIP |
| IDSG | 681 | | | * | X | X | | | A | 1 | TERFI |
| IDSG | 682 | | | * | X | X | | (NS) | A | 2 | WTO |
| IDSG | 683 | | | * | X | X | | (NS) | A | 1 | FAC(A)I |
| IDSG | 688 | | | * | X | X | | | A | 2 | DACM(I) |
| IDSG | 689 | | | * | X | X | | (NS) | A | 1 | TAC(A)I |
| IDSG | 694 | | | * | X | X | | NS | A | 1 | NSFI |
| IDSG | 695 | | | * | X | X | | NS | A | 1 | NSSI |
| IDSG | 696 | | | * | X | X | | NS | A | 1 | NSI |
| IDSG | 699 | | | * | X | X | | (NS) | A | 1 | WTI |
| | | FLT HRS | SIM HRS | | | | | | | | |
| Sub Total | | 4.5 | 1.5 | | | | | | | | |

Figure 1-2.--MOS 7563 Refly Interval, Combat Readiness Percentage--Continued.

UH-1N FLIGHT UPDATE CHAINING

The below chaining codes chain only the day portion of night optional flights. The IP shall log the appropriate additional code(s) if flown at night. Additionally the IP shall ensure the appropriate codes are logged if mission execution results in flying multiple codes that are not annotated on the flight schedule.

| <u>STAGE</u> | <u>FLIGHT</u> | <u>FLIGHTS UPDATED</u> |
|--------------|---------------|--|
| TERF | 210 | |
| | 211 | 210 |
| NVD | 215 | |
| SNVD | 216 | 215 |
| CAL | 220 | |
| | 221 | 220 |
| | 222 | 210, 220 |
| | 223 | 210, 211, 216, 220, 221, 222 |
| REC | 230 | 210 |
| | 231 | 210, 211, 216, 230 |
| SSWD | 240 | |
| SWD | 241 | 210, 230, 240 |
| | 242 | 210, 211, 216, 230, 231, 240, 241 |
| | 243 | 210, 230, 240 |
| | 244 | 210, 211, 216, 230, 231, 242, 243 |
| ESC | 250 | 210, 230 |
| | 251 | 210, 211, 216, 230, 231, 250 |
| | 252 | 210, 230 |
| TAC | 260 | |
| | 261 | 210, 220, 230, 243 |
| SEW | 300 | |
| EW | 301 | 300 |
| SANSQ | 310 | |
| ANSQ | 311 | 210, 211, 216, 230, 231, 310 |
| | 312 | 210, 211, 216, 230, 231, 310, 311 |
| | 313 | 210, 211, 216, 223, 230, 231, 310, 311 |
| TAC | 320 | 211, 216, 231, 244 |
| | 321 | 211, 216, 231, 244 |
| | 322 | 211, 216, 231, 244, 251 |
| | 323 | 211, 216, 231, 244, 313 |
| | 324 | 211, 216, 231, 244, 313 |
| | 325 | 211, 216, 231, 244, 313 |

Figure 1-3.--MOS 7563 Flight Update Chaining.

| | | |
|------|-----|------------------------------|
| FAC | 340 | 210, 230 |
| | 341 | 210, 230 |
| | 342 | 210, 211, 230, 231 |
| | 343 | 210, 230 |
| HIE | 400 | |
| | 401 | |
| | 402 | 220 |
| | 403 | 210, 220 |
| | 404 | 210, 220 |
| | 405 | |
| | 406 | 210, 211, 221 |
| DACM | 410 | 241 |
| | 411 | 410 |
| | 412 | 410, 411 |
| | 413 | 410, 411, 412 |
| | 414 | 410, 411, 412, 413, |
| | 415 | 410, 411, 412, 413, 414 |
| | 416 | 410, 411, 412, 413, 414, 415 |
| NBC | 420 | |
| CQ | 430 | |
| | 431 | 430 |
| | 432 | 430, 431 |
| | 433 | 430, 431, 432 |
| | 434 | 430, 431, 432, 433 |
| | 435 | 430, 431, 432, 433 |
| MAT | 450 | 210 |
| | 451 | 210, 211 |
| TAC | 470 | |

Figure 1-3.--MOS 7563 Flight Update Chaining--Continued.

CHAPTER 2

UH-1N CREW CHIEF/AERIAL OBSERVER

| | <u>PARAGRAPH</u> | <u>PAGE</u> |
|--|------------------|-------------|
| MARINE LIGHT ATTACK SQUADRON UNIT TEMPLATE, MISSION STATEMENT, CORE COMPETENCY SKILLS | 200 | 2-3 |
| PROGRAMS OF INSTRUCTION (POI) FOR BASIC/TRANSITION CREW CHIEF.. | 201 | 2-12 |
| POI FOR CONVERSION CREW CHIEF..... | 202 | 2-12 |
| POI FOR REFRESHER CREW CHIEF..... | 203 | 2-13 |
| POI FOR BASIC, TRANSITION, CONVERSION, AND REFRESHER AERIAL OBSERVER..... | 204 | 2-13 |
| GROUND/ACADEMIC TRAINING COURSES OF INSTRUCTION..... | 210 | 2-13 |
| SQUADRON LEVEL TRAINING..... | 211 | 2-13 |
| FLIGHT TRAINING FOR BASIC/TRANSITION CREW CHIEF..... | 220 | 2-14 |
| FLIGHT TRAINING FOR BASIC/TRANSITION AERIAL OBSERVER..... | 221 | 2-15 |
| FLIGHT TRAINING FOR CONVERSION CREW CHIEF..... | 222 | 2-16 |
| FLIGHT TRAINING FOR CONVERSION AERIAL OBSERVER..... | 223 | 2-17 |
| FLIGHT TRAINING FOR REFRESHER CREW CHIEF..... | 224 | 2-18 |
| FLIGHT TRAINING FOR REFRESHER AERIAL OBSERVER..... | 225 | 2-19 |
| FLIGHT TRAINING FOR INSTRUCTOR CREW CHIEF..... | 226 | 2-19 |
| GRADUATE LEVEL COURSES..... | 227 | 2-19 |
| SIMULATOR TRAINING..... | 228 | 2-20 |
| EVENT TRAINING..... | 229 | 2-20 |
| FLIGHT/SIMULATOR PERFORMANCE REQUIREMENTS..... | 230 | 2-20 |
| CORE SKILL INTRODUCTION PHASE..... | 231 | 2-22 |
| CORE SKILL BASIC PHASE..... | 232 | 2-32 |
| CORE SKILL ADVANCED PHASE..... | 233 | 2-41 |
| CORE SKILL PLUS PHASE..... | 234 | 2-46 |
| INSTRUCTOR TRAINING..... | 250 | 2-55 |
| REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS (RQD)..... | 251 | 2-56 |
| ORDNANCE REQUIREMENTS..... | 260 | 2-63 |

FIGURES

| | <u>PAGE</u> |
|---|-------------|
| 2-1 NOTIONAL TRAINING PROGRESSION MODEL..... | 2-12 |
| 2-2 MOS 6174 REFLY INTERVAL, COMBAT READINESS PERCENTAGE..... | 2-64 |
| 2-3 AO REFLY INTERVAL, COMBAT READINESS PERCENTAGE..... | 2-69 |
| 2-4 MOS 6174 FLIGHT UPDATE CHAINING..... | 2-72 |
| 2-5 AERIAL GUNNER/OBSERVER FLIGHT UPDATE CHAINING..... | 2-74 |

CHAPTER 2

UH-1N CREW CHIEF/AERIAL OBSERVER

200. MARINE LIGHT ATTACK SQUADRON UH-1N UNIT TEMPLATE, MISSION STATEMENT, CORE COMPETENCY SKILLS

1. Background. Marine Aviation plays a crucial role in the MAGTF's ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while at the same time preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice and the ability to quickly and effectively plan for crises and/or contingency operations thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The UH-1N T&R Manual represents the collaborative effort of UH-1N Subject Matter Experts who designed training standards to maximize the full combat capabilities of the UH-1N and its crew. These standards, intrinsic in the core competency section, describe and define unit capabilities and requirements necessary to maintain like-squadron proficiency in core skills and combat leadership. Training events are based on specific requirements and performance standards to ensure aircrew maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure that trained aircrews remain ready, relevant, and fully capable of supporting the MAGTF commander.

2. HMLA Mission. Support the MAGTF Commander by providing offensive air support, utility support, armed escort and airborne supporting arms coordination, day or night under all weather conditions during expeditionary, joint or combined operations.

3. UH-1 Mission Essential Task List (METL)

- a. (UJTL TA 1.1.2) Conduct Shipboard Deck helicopter Landing Qualifications
- b. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations
 - Maintain the capability to deploy and operate from advanced bases, expeditionary airfields, Forward Operating Bases (FOBs), and naval shipping.
 - Perform organizational maintenance on assigned aircraft.
- c. (UJTL TA 1.2.1) Conduct Air Assault Operations and Air Assault
 - Provided assault support transport of combat troops.
 - Provide support for casualty evacuation operations.
 - Provide armed escort for assault helicopters.
- d. (UJTL TA 1.2.3) Conduct Amphibious Assault and Raid Operations
 - Conduct assault support for maritime special operations.
 - Provide armed escort for airborne and surface forces.
- e. (UJTL TA 3.2.1) Conduct Fire Support
 - Provide fire support for forward and rear area forces against point and area targets.

- f. (UJTL TA 3.2.2) Conduct Close Air Support
 - Conduct escort of friendly ground forces.
 - Conduct Assault Support Escort.
- g. (UJTL TA 3.2.3) Conduct Interdiction Operations
 - Conduct armed reconnaissance
- h. (UJTL TA 3.2.8) Conduct Air-to-Air Operations
 - Maintain self-defense capability from air-to-air threats.
- i. (UJTL TA 3.3) Coordinate Battlespace Maneuver and Integrate with Firepower
 - Conduct combined arms coordination and control operations.
 - Provide airborne command, control and coordination for assault support operations.
 - Conduct multi-sensor imagery, visual reconnaissance, and provide Battle Damage Assessment.
- j. (UJTL TA 6.2) Conduct Joint Personnel Recovery
 - Conduct Tactical Recovery of Aircraft and Personnel (TRAP) operations.
 - Augment local Search and Rescue (SAR) assets.
- k. (UJTL TA 6.3) Conduct Rear Area Security
 - Provide fire support and security for rear area forces.
- l. (UJTL TA 6.4) Conduct Noncombatant Evacuation
 - Provide Fire Support and escort for evacuation operations.
 - Provide support for evacuation operations.

4. Table Of Organization. Refer to Table of Organization 8970 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength. As of this publication date, HMLA units are authorized:

HMLA SQUADRON
 18 AH-1W, 9 UH-1N
 Pilots: 44 AH-1W, 23 UH-1N
 19 Crew Chiefs
 17 Aerial Gunners/Observers

HMLA DETACHMENT
 6 AH-1W & 3 UH-1N
 Pilots: 14 AH-1W, 7 UH-1N
 5 Crew Chiefs
 5 Aerial Gunners/Observers

5. Core Capability. A core capable HMLA unit is able to sustain the number of sorties listed below on a daily basis during contingency/combat operations. The sortie rates are based on 1.5 hour average sortie duration and assumes ≥ 70 percent FMC aircraft and ≥ 90 percent T/O aircrew on hand. If unit FMC aircraft < 70 percent or T/O aircrew < 90 percent, core capability will be degraded by a like percentage. A core capable unit is able to accomplish all tasks designated in the unit METL from a main base, expeditionary base, or amphibious platform.

a. Core Capable Squadron. A Core Capable HMLA squadron is able to sustain 30 AH-1W and 15 UH-1N sorties per 24-hour period.

b. Core Capable Squadron (-). A Core Capable squadron (-) is able to sustain 21 AH-1W and 10 UH-1N sorties per 24-hour period.

c. Core Capable Detachment. A Core Capable detachment is able to sustain 10 AH-1W and 5 UH-1N sorties per 24-hour period.

6. METL/Core Skill Matrix. UH-1 core skills directly support the METL as follows:

| METL | UH-1 CORE SKILL | | | | | | | | |
|---|-----------------|-----|-----|-----|----|-----|------|-----|-----|
| | TERF | CAL | REC | SWD | EW | ESC | ANSQ | TAC | FAC |
| a. Conduct Shipboard Deck helicopter Landing Qualifications | | | | | | | X | | |
| b. Conduct Sea and Air Deployment Operations | | | | | | | X | | |
| c. Conduct Air Assault Operations and Air Assault | X | X | | X | X | X | X | X | |
| d. Conduct Amphibious Assault and Raid Operations | X | X | X | X | X | X | X | X | X |
| e. Conduct Fire Support | X | | X | X | X | | X | X | X |
| f. Conduct Close Air Support | X | | X | X | X | X | X | X | X |
| g. Conduct Interdiction Operations | X | | X | X | X | X | X | X | X |
| h. Conduct Air-to-Air Operations | X | | | X | X | X | | X | |
| i. Coordinate Battlespace Maneuver and Integrate with Firepower | X | | X | X | | | X | X | X |
| j. Conduct Joint Personnel Recovery | X | X | X | X | X | | X | X | X |
| k. Conduct Rear Area Security | X | X | X | X | X | X | X | X | X |
| l. Conduct Noncombatant Evacuation | X | X | X | X | X | X | X | X | X |

| METL | CORE PLUS | | | | |
|---|-----------|-----|------|-----|-----|
| | CQ | HIE | DACM | NBC | MAT |
| a. Conduct Shipboard Deck helicopter Landing Qualifications | X | | | | |
| b. Conduct Sea and Air Deployment Operations | X | | | | |
| c. Conduct Air Assault Operations and Air Assault | X | X | X | X | X |
| d. Conduct Amphibious Assault and Raid Operations | X | X | X | X | X |
| e. Conduct Fire Support | | | | X | |
| f. Conduct Close Air Support | | | | X | |
| g. Conduct Interdiction Operations | | | | X | |
| h. Conduct Air-to-Air Operations | | | X | X | |
| i. Coordinate Battlespace Mnvr and Int w/Firepower | | | | X | |
| j. Conduct Joint Personnel Recovery | | X | | X | X |
| k. Conduct Rear Area Security | | X | X | X | X |
| l. Conduct Noncombatant Evacuation | X | | | | X |

7. UH-1N Core Model Minimum Requirements. Squadron core competency reflects the minimum level of competency a squadron must achieve to perform its core capability. UH-1 core competency is measured in terms of minimum unit Core Skill Proficiency (CSP) and minimum numbers of flight leaders per paragraphs a and b below:

a. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of UH-1 crews who are proficient in each core skill (Unit CSP). In order to be considered proficient in a core skill (individual CSP), a UH-1 crewmember must attain and maintain proficiency in core skill events, as delineated in paragraphs (1) and (2) below. The standard UH-1N crew consists of 2 Pilots, a Crew Chief, and an AO/AG.

* NOTE: CQ, HIE, DACM, NBC, and MAT are core plus skills. Proficiency in these skills is not required to obtain unit CSP. Below are UH-1 community recommended unit/individual CSP standards for CQ, HIE, DACM, NBC, and MAT.

| | UH-1N Unit CSP Requirements Squadron | | | |
|--------------------------|---|----------------|--------|-------|
| CORE SKILL *CORE PLUS | Pilots | Crew Chiefs | AO/AGs | Crews |
| TERF | 12 | 6 | 6 | 6 |
| CAL | 12 | 6 | 6 | 6 |
| REC | 12 | -- | -- | 6 |
| SWD | 10 | 5 | 5 | 5 |
| EW | 6 | 3 | 3 | 3 |
| ESC | 10 | 5 | 5 | 5 |
| ANSQ | 8 | 4 | 4 | 4 |
| TAC | 8 | 4 | 4 | 4 |
| FAC | 4 | -- | -- | 4 |
| *CQ | 4 | 2 | 2 | 2 |
| *HIE | 4 | 2 | 2 | 2 |
| *DACM | 6 | 3 | 3 | 3 |
| *NBC | 2 | 1 | 1 | 1 |
| *MAT | 4 | 2 | 2 | 2 |

| | UH-1N Unit CSP Requirements Squadron (-) | | | |
|--------------------------|---|----------------|--------|-------|
| CORE SKILL *CORE PLUS | Pilots | Crew Chiefs | AO/AGs | Crews |
| TERF | 8 | 4 | 4 | 4 |
| CAL | 8 | 4 | 4 | 4 |
| REC | 8 | -- | -- | 4 |
| SWD | 6 | 3 | 3 | 3 |
| EW | 4 | 2 | 2 | 2 |
| ESC | 6 | 3 | 3 | 3 |
| ANSQ | 4 | 2 | 2 | 2 |
| TAC | 4 | 2 | 2 | 2 |
| FAC | 2 | -- | -- | 2 |
| *CQ | 2 | 1 | 1 | 1 |
| *HIE | 2 | 1 | 1 | 1 |
| *DACM | 2 | 1 | 1 | 1 |
| *NBC | 2 | 1 | 1 | 1 |
| *MAT | 2 | 1 | 1 | 1 |

| | UH-1N Unit CSP Requirements Detachment | | | |
|--------------------------|---|----------------|--------|-------|
| CORE SKILL *CORE PLUS | Pilots | Crew Chiefs | AO/AGs | Crews |
| TERF | 6 | 3 | 3 | 3 |
| CAL | 6 | 3 | 3 | 3 |
| REC | 6 | -- | -- | 6 |
| SWD | 4 | 2 | 2 | 2 |
| EW | 4 | 2 | 2 | 2 |
| ESC | 4 | 2 | 2 | 2 |
| ANSQ | 4 | 2 | 2 | 2 |
| TAC | 4 | 2 | 2 | 2 |
| FAC | 1 | -- | -- | 1 |
| *CQ | 6 | 3 | 3 | 3 |
| *HIE | 2 | 1 | 1 | 1 |
| *DACM | 2 | 1 | 1 | 1 |
| *NBC | 2 | 1 | 1 | 1 |
| *MAT | 2 | 1 | 1 | 1 |

(1) Events Required to Attain Individual CSP. To initially attain CSP, a UH-1 crewmember must successfully complete all of the T&R events listed in the chart below for that core skill.

| UH-1N Crew Chief | TERF | CAL | SWD | ESC | ANSQ | TAC |
|---|------------|-------------------|--|------------|-------------------|-------------------|
| T&R event requirements to attain competency | 210 211 | 220 221 223 | 240 241 242 243 244 245 | 250 322 | 311 312 313 | 261 320 321 |

| UH-1N Crew Chief | CQ | HIE | DACM | NBC |
|---|---------------------------------|---|---|-----|
| T&R event requirements to attain competency | 431 432 433 434 435 | 400 401 402 403 404 405 406 | 410 411 412 413 414 415 416 | 420 |

| UH-1N AO/AG | TERF | CAL | SWD | ESC | ANSQ | TAC |
|---|------------|-------------------|--|------------|-------------------|-------------------|
| T&R event requirements to attain competency | 210 211 | 220 221 223 | 240 241 242 243 244 245 | 250 322 | 311 312 313 | 261 320 321 |

| UH-1N AO/AG | CQ | HIE | DACM | NBC |
|---|---|---------------------------------|---|-----|
| T&R event requirements to attain competency | 431 432 433 434 435 405 406 | 400 401 402 403 404 | 410 411 412 413 414 415 416 | 420 |

(2) Events Required to Maintain Individual CSP. To maintain CSP, an individual must maintain proficiency in all of the T&R events listed in the chart below for that core skill.

| UH-1N Crew Chief | TERF | NS | CAL | SWD | ANSQ | TAC | ESC |
|--|------|-----|------------|--|------|------------|-----|
| T&R event requirements to maintain CSP | 211 | 215 | 221 223 | 243 244 245 315 316 317 | 313 | 261 321 | 322 |

| UH-1N Crew Chief | HIE | DACM | CQ | NBC |
|--|--|---|---------------------------------|-----|
| T&R event requirements to maintain CSP | 400 401 402 414 415 416 | 410 411 412 413 414 415 416 | 431 432 433 434 435 | 420 |

| UH-1N AO/AG | TERF | CAL | SWD | ANSQ | TAC |
|--|------|------------|--|------|-----|
| T&R event requirements to maintain CSP | 211 | 221 223 | 243 244 245 315 316 317 | 313 | 321 |

| UH-1N AO/AG | DACM | CQ | NBC |
|--|--|---------------------------------|-----|
| T&R event requirements to maintain CSP | 410 411 412 414 415 416 | 431 432 433 434 435 | 420 |

b. Minimum Combat Leader Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of UH-1 aircrew with the listed flight leadership designations.

| DESIGNATION | SQDN | SQDN(-) | DETACHMENT |
|-------------|------|---------|------------|
| UHC | 9 | 6 | 3 |
| SECTION LD | 5 | 3 | 2 |
| DIVISION LD | 2 | 1 | 1 |
| *FLIGHT LD | 4 | 3 | 1 |
| *AMC | 4 | 3 | 1 |

* Flight Lead and AMC Combat Leader requirements apply to HMLA squadron, not individual aircraft models (may be filled by UH or AH pilot).

8. Qualifications and Designations Tables. The tables below delineate T&R events required to be completed to attain initial qualifications and designations. All stage lectures, briefs, squadron training and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in individual NATOPS and APR/MPR jackets. Loss of proficiency in all qualification events of a core skill causes the associated qualification to be lost. Regaining a qualification requires completing all R coded syllabus events associated with that qualification.

| Qualification | Initial Event Qualification Requirements. |
|--------------------------|---|
| NATOPS (RQD-601) | IAW OPNAV 3710.7 and an annual qualification letter signed by the CO. |
| TERF/CAL (QUAL-610) | 210, 211, 220, 221, 223 |
| NSQ HLL (QUAL-611) | 215, 243 or 244 or 245, 261 |
| NSQ LLL (QUAL-612) | 311, 312, 313, |
| CQ (QUAL-615) | 431, 433 |
| NVDCQ (QUAL-616) | 432, 434 |
| NIGHT CQ (QUAL-617) | 435 |
| RWDACM (QUAL-618) | 411, 412 |
| DACM (QUAL-619) | 414, 415, 416 |
| SWD GAU-16 (QUAL-620) | 240, 243, 261, 315, and NSQ LLL |
| SWD GAU-17 (QUAL-621) | 241, 244, 261, 316, and NSQ LLL |
| SWD M240 (QUAL-622) | 242, 245, 261, 317, and NSQ LLL |

| Designation | Designation Requirements |
|--------------------------|--|
| CC/AO | CSIX-181 |
| CCI (IDSG 680) | 500, 504. Must be a TERFI, AGI, and NSQ LLL. |
| TERFI (IDSG 681) | IAW MAWTS-1 Course Catalog. |
| AGI GAU-16 (IDSG 682) | |
| AGI GAU-17 (IDSG 683) | |
| AGI M240 (IDSG 684) | |
| DACMI (IDSG 688) | |
| NSFI (IDSG 694) | |
| NSSI (IDSG 695) | |
| NSI (IDSG 696) | |
| WTI (IDSG 699) | |

a. Instructor Requirements. A squadron should possess the following numbers of UH-1 aircrew with the listed instructor designations IAW MCO 3500.12C (WTTP).

| | Squadron | | |
|------------------------|----------|-------------|--------|
| INSTRUCTOR DESIGNATION | Pilots | Crew Chiefs | AO/AGs |
| BIP | 4 | -- | -- |
| TERFI | 4 | 3 | -- |
| WTO | 4 | -- | -- |
| NSI | 3 | 3 | -- |
| WTI | 3 | 3 | -- |
| FAC(A)I | 2 | -- | -- |
| TAC(A)I | 1 | -- | -- |
| DACMI | 2 | 2 | -- |
| C/C AGI | -- | 4 | -- |

| | Squadron (-) | | |
|------------------------|--------------|-------------|--------|
| INSTRUCTOR DESIGNATION | Pilots | Crew Chiefs | AO/AGs |
| BIP | 2 | -- | -- |
| TERFI | 2 | 3 | -- |
| WTO | 2 | -- | -- |
| NSI | 2 | 2 | -- |
| WTI | 2 | 2 | -- |
| FAC(A)I | 1 | -- | -- |
| TAC(A)I | 1 | -- | -- |
| DACMI | 1 | 1 | -- |
| C/C AGI | -- | 3 | -- |

| INSTRUCTOR DESIGNATION | Detachment | | |
|---------------------------|------------|----------------|--------|
| | Pilots | Crew Chiefs | AO/AGs |
| BIP | 2 | -- | -- |
| TERFI | 2 | 1 | -- |
| WTO | 2 | -- | -- |
| NSI | 1 | 1 | -- |
| WTI | 1 | 1 | -- |
| FAC(A)I | 1 | -- | -- |
| TAC(A)I | 0 | -- | -- |
| DACMI | 1 | 1 | -- |
| C/C AGI | -- | 1 | -- |

b. Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. It is a measure of time since the last event demanding that specific skill. Loss of currency does not affect a loss of CRP. For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for individual type mission profiles can be found in Chapter 4 of the T&R Program Manual.

c. Proficiency. A measure of achievement of a specific skill. Units shall emphasize proficiency training in core competencies. Refly factors establish the maximum time between demonstration of those particular skills. CRP is a measurement of "demonstrated proficiency." If an aircrew member exceeds the refly factor for a particular event, the individual loses CRP for that particular event. To regain proficiency, an individual shall complete the delinquent events with a proficient crewman/flight lead. If an entire unit loses proficiency, unit instructors shall regain proficiency by completing an event with an instructor from a like unit. If this is not feasible, the instructor shall regain proficiency by completing the event with another instructor. If a unit has only one instructor and cannot complete the event with an instructor from another unit, he shall regain proficiency with another aircraft commander or as designated by his commanding officer.

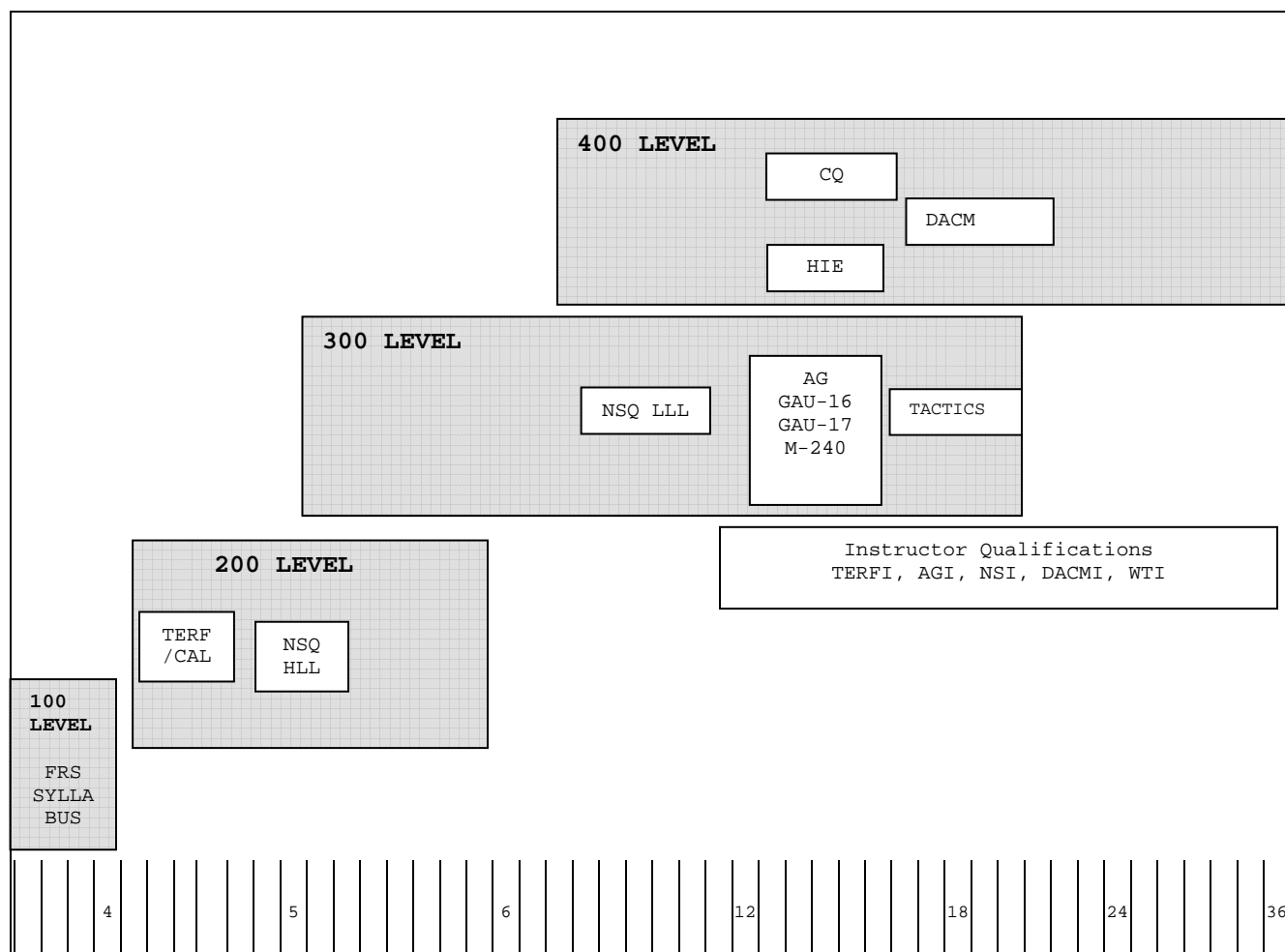


Figure 2-1.--Notional Training Progression Model.

201. PROGRAMS OF INSTRUCTION (POI) FOR BASIC/TRANSITION CREW CHIEF

| <u>WEEKS</u> | <u>COURSE/PHASE</u> | <u>ACTIVITY</u> |
|--------------|-------------------------------|-------------------|
| 1-2 | UH-1N Familiarization | Training Squadron |
| 3-8 | Ground School | Training Squadron |
| 9-19 | Core Skill Introduction Phase | Training Squadron |
| 20-24 | Core Skill Basic Phase | Tactical Squadron |
| 25-28 | Core Skill Advanced Phase | Tactical Squadron |
| 29-32 | Core Skill Plus Phase | Tactical Squadron |

202. POI FOR CONVERSION CREW CHIEF

| <u>WEEKS</u> | <u>COURSE/PHASE</u> | <u>ACTIVITY</u> |
|--------------|-------------------------------|-------------------|
| 1-5 | UH-1N Familiarization | Training Squadron |
| 6-10 | Ground School | Training Squadron |
| 11-20 | Core Skill Introduction Phase | Training Squadron |
| 21-23 | Core Skill Basic Phase | Tactical Squadron |
| 24-26 | Core Skill Advanced Phase | Tactical Squadron |
| 27-34 | Core Skill Plus Phase | Tactical Squadron |

203. POI FOR REFRESHER CREW CHIEF

| <u>WEEKS</u> | <u>COURSE/PHASE</u> | <u>ACTIVITY</u> |
|--------------|-------------------------------|-------------------|
| 1-4 | UH-1N Familiarization | Tactical Squadron |
| 5 | Ground School | Tactical Squadron |
| 6-11 | Core Skill Introduction Phase | Tactical Squadron |
| 12-13 | Core Skill Basic Phase | Tactical Squadron |
| 14-15 | Core Skill Advanced Phase | Tactical Squadron |
| 16-18 | Core Skill Plus Phase | Tactical Squadron |

204. POI FOR BASIC, TRANSITION, CONVERSION AND REFRESHER AERIAL OBSERVER

| <u>WEEKS</u> | <u>COURSE/PHASE</u> | <u>ACTIVITY</u> |
|--------------|---------------------|-------------------|
| 1-2 | Ground School | Tactical Squadron |
| 3-15 | Flight Training | Tactical Squadron |

210. GROUND/ACADEMIC TRAINING COURSES OF INSTRUCTION

| <u>COURSE</u> | <u>ACTIVITY</u> |
|---|--|
| UH-1N Familiarization | Fleet Replacement Squadron |
| SERE School | NAS Brunswick, ME/NAS North Island, CA |
| Appropriate Aerial Gunnery School | Squadron |
| Aviation Physiology/ Aviation Water Survival | See OPNAVINST 3710.7_ |

211. SQUADRON LEVEL TRAINING

Publications and Related Directives
 Communications Procedures
 Maintenance Procedures
 Safety
 Weapons Training
 MAWTS-1 Academic Support Package
 Map Interpretation
 Night Vision Device Operation
 Search and Rescue
 Helicopter Loading
 Fueling and Servicing
 Equipment Stowing
 Helicopter Inspection
 Preservation and Cleaning of Helicopter and Corrosion Control
 Aircraft Recognition
 Troubleshooting (Ground/Inflight)

220. FLIGHT TRAINING FOR BASIC/TRANSITION CREW CHIEF1. Core Skill Introduction Phase

| STAGE | NO. EVENTS | NO. HOURS | CRP |
|--|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Familiarization | 4/0 | 6.0/0.0 | 13.0/0.0 |
| Formation | 2/0 | 3.0/0.0 | 7.0/0.0 |
| Terrain Flight | 2/0 | 3.0/0.0 | 7.0/0.0 |
| Navigation | 2/0 | 3.0/0.0 | 7.0/0.0 |
| Aerial Gunnery | 1/1 | 1.5/1.0 | 4.0/2.0 |
| Confined Area Landings | 3/0 | 4.5/0.0 | 10.0/0.0 |
| External Weight | 1/0 | 1.5/0.0 | 3.0/0.0 |
| Core Skill Introduction Evaluation | 1/0 | 1.5/0.0 | 7.0/0.0 |
| TOTAL FOR PHASE | 16/1 | 24.0/1.0 | 58.0/2.0 |
| COMBINED TOTALS | 17 | 25.0 | 60.0 |
| ACCUMULATION FOR BASIC/TRANSITION POI | 17 | 25.0 | 60.0 |

2. Core Skill Basic Phase

| STAGE | NO. EVENTS | NO. HOURS | CRP |
|--|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Terrain Flight/Navigation | 2/0 | 3.0/0.0 | 2.0/0.0 |
| Confined Area Landings | 3/0 | 4.5/0.0 | 3.0/0.0 |
| Aerial Gunnery | 6/0 | 9.0/0.0 | 6.0/0.0 |
| Escort | 1/0 | 1.5/0.0 | 1.5/0.0 |
| Night Systems | 1/0 | 1.5/0.0 | 1.0/0.0 |
| Tactics | 1/0 | 1.5/0.0 | 1.5/0.0 |
| TOTAL FOR PHASE | 14/0 | 21.0/0.0 | 15.0/0.0 |
| COMBINED TOTALS | 14 | 21.0 | 15.0 |
| ACCUMULATION FOR BASIC/TRANSITION POI | 31 | 46.0 | 75.0 |

3. Core Skill Advanced Phase

| STAGE | NO. EVENTS | NO. HOURS | CRP |
|--|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Night Systems Qualification | 3/0 | 4.5/0.0 | 7.5/0.0 |
| Aerial gunnery | 3/0 | 4.5/0.0 | 6.0/0.0 |
| Tactics | 2/0 | 4.0/0.0 | 4.5/0.0 |
| Escort | 1/0 | 1.5/0.0 | 2.0/0.0 |
| TOTAL FOR PHASE | 9/0 | 14.5/0.0 | 20.0/0.0 |
| COMBINED TOTALS | 9 | 14.5 | 20.0 |
| ACCUMULATION FOR BASIC/TRANSITION POI | 40 | 60.5 | 95.0 |

4. Core Skill Plus Phase

| STAGE | NO. EVENTS | NO. HOURS | CRP |
|---------------------------------------|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Helicopter Insertion/Extraction (HIE) | 7/0 | 7.0/0.0 | 1.4/0.0 |
| Defensive Air Combat Maneuvers | 6/0 | 6.5/0.0 | 1.4/0.0 |
| Nuclear, Biological, & Chemical | 1/0 | 1.0/0.0 | 0.2/0.0 |
| Carrier Qualification | 5/0 | 5.0/0.0 | 2.0/0.0 |
| TOTAL FOR PHASE | 19/0 | 19.5/0.0 | 5.0/0.0 |
| COMBINED TOTALS | 19 | 19.5 | 5.0 |
| TOTAL FOR BASIC/TRANSITION POI | 59 | 80 | 100.0 |

221. FLIGHT TRAINING FOR BASIC/TRANSITION AERIAL OBSERVER1. Core Skill Introduction Phase

| STAGE | NO. EVENTS | NO. HOURS | CRP |
|--|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Familiarization | 2/0 | 3.0/0.0 | 4.0/0.0 |
| Formation | 2/0 | 3.0/0.0 | 10.0/0.0 |
| Terrain Flight | 2/0 | 3.0/0.0 | 10.0/0.0 |
| Navigation | 1/0 | 1.5/0.0 | 5.0/0.0 |
| Aerial Gunnery | 1/1 | 1.5/1.0 | 5.0/1.0 |
| Confined Area Landings | 2/0 | 3.0/0.0 | 10.0/0.0 |
| Core Skill Introduction Evaluation | 1/0 | 1.5/0.0 | 15.0/0.0 |
| TOTAL FOR PHASE | 11/1 | 16.5/1.0 | 59.0/1.0 |
| COMBINED TOTALS | 12 | 17.5 | 60.0 |
| ACCUMULATION FOR BASIC/TRANSITION POI | 12 | 17.5 | 60.0 |

2. Core Skill Basic Phase

| STAGE | NO. EVENTS | NO. HOURS | CRP |
|--|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Terrain Flight/Navigation | 2/0 | 3.0/0.0 | 2.5/0.0 |
| Confined Area Landings | 3/0 | 4.5/0.0 | 4.5/0.0 |
| Aerial Gunnery | 6/0 | 9.0/0.0 | 6.0/0.0 |
| Night Systems | 1/0 | 1.5/0.0 | 1.0/0.0 |
| Tactics | 1/0 | 1.5/0.0 | 1.5/0.0 |
| TOTAL FOR PHASE | 13/0 | 19.5/0.0 | 15.0/0.0 |
| COMBINED TOTALS | 13 | 19.5 | 15.0 |
| ACCUMULATION FOR BASIC/TRANSITION POI | 25 | 37.0 | 75.0 |

3. Core Skill Advanced Phase

| STAGE | NO. EVENTS | NO. HOURS | CRP |
|--|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Advanced Night Systems Qualification | 3/0 | 4.5/0.0 | 7.5/0.0 |
| Aerial Gunnery | 3/0 | 4.5/0.0 | 7.5/0.0 |
| Tactics | 2/0 | 3.0/0.0 | 5.0/0.0 |
| TOTAL FOR PHASE | 8/0 | 12.5/0.0 | 20.0/0.0 |
| COMBINED TOTALS | 8 | 12.5 | 20.0 |
| ACCUMULATION FOR BASIC/TRANSITION POI | 33 | 49.5 | 95.0 |

4. Core Skill Plus Phase

| STAGE | NO. EVENTS | NO. HOURS | CRP |
|---------------------------------------|-----------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Defensive Air Combat Maneuvers | 6/0 | 6.5/0.0 | 2.6/0.0 |
| Nuclear, Biological & Chemical | 1/0 | 1.0/0.0 | 0.5/0.0 |
| Carrier Qualification | 5/0 | 5.0/0.0 | 1.9/0.0 |
| TOTAL FOR PHASE | 12/0 | 12.5/0.0 | 5.0/0.0 |
| COMBINED TOTALS | 12 | 12.5 | 5.0 |
| TOTAL FOR BASIC/TRANSITION POI | 45 | 62.0 | 100.0 |

222. FLIGHT TRAINING FOR CONVERSION CREW CHIEF1. Core Skill Introduction Phase

| STAGE | NO. EVENTS | NO. HOURS |
|--|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Familiarization | 3/0 | 4.5/0.0 |
| Formation | 2/0 | 3.0/0.0 |
| Terrain Flight | 1/0 | 1.5/0.0 |
| Navigation | 1/0 | 1.5/0.0 |
| Aerial Gunnery | 1/0 | 1.5/0.0 |
| Confined Area Landings | 2/0 | 3.0/0.0 |
| External Weight | 1/0 | 1.5/0.0 |
| Core Skill Introduction Evaluation | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 12/0 | 18.0/0.0 |
| COMBINED TOTALS | 12 | 18.0 |
| ACCUMULATION FOR CONVERSION POI | 12 | 18.0 |

2. Core Skill Basic Phase

| STAGE | NO. EVENTS | NO. HOURS |
|--|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Terrain Flight/Navigation | 2/0 | 3.0/0.0 |
| Confined Area Landings | 3/0 | 4.5/0.0 |
| Aerial Gunnery | 6/0 | 9.0/0.0 |
| Escort | 1/0 | 1.5/0.0 |
| Night Systems | 1/0 | 1.5/0.0 |
| Tactics | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 14/0 | 21.0/0.0 |
| COMBINED TOTALS | 14 | 21.0 |
| ACCUMULATION FOR CONVERSION POI | 26 | 39.0 |

3. Core Skill Advanced Phase

| STAGE | NO. EVENTS | NO. HOURS |
|--|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Advanced Night Systems Qualification | 2/0 | 3.0/0.0 |
| Aerial Gunnery | 3/0 | 4.5/0.0 |
| Escort | 1/0 | 1.5/0.0 |
| Tactics | 2/0 | 3.0/0.0 |
| TOTAL FOR PHASE | 8/0 | 12.0/0.0 |
| COMBINED TOTALS | 8 | 12.0 |
| ACCUMULATION FOR CONVERSION POI | 34 | 51.0 |

4. Core Skill Plus Phase

| STAGE | NO. EVENTS | NO. HOURS |
|---------------------------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Helicopter Insertion/Extraction (HIE) | 6/0 | 6.0/0.0 |
| Defensive Air Combat Maneuvers | 6/0 | 6.5/0.0 |
| Nuclear, Biological, & Chemical | 1/0 | 1.5/0.0 |
| Carrier Qualification | 5/0 | 5.0/0.0 |
| TOTAL FOR PHASE | 18/0 | 19.0/0.0 |
| COMBINED TOTALS | 18 | 19.0 |
| TOTAL FOR CONVERSION POI | 52 | 70.0 |

223. FLIGHT TRAINING FOR CONVERSION AERIAL OBSERVER1. Core Skill Introduction Phase

| STAGE | NO. EVENTS | NO. HOURS |
|---|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Familiarization | 1/0 | 1.5/0.0 |
| Formation | 2/0 | 3.0/0.0 |
| Terrain Flight | 1/0 | 1.5/0.0 |
| Navigation | 1/0 | 1.5/0.0 |
| Aerial Gunnery | 1/0 | 1.5/0.0 |
| Confined Area Landings | 2/0 | 3.0/0.0 |
| Core Skill Introduction Evaluation | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 9/0 | 14.5/0.0 |
| COMBINED TOTALS | 9 | 14.5 |
| ACCUMULATION FOR CONVERSION AO POI | 9 | 14.5 |

2. Core Skill Basic Phase

| STAGE | NO. EVENTS | NO. HOURS |
|---|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Terrain Flight/Navigation | 2/0 | 3.0/0.0 |
| Confined Area Landings | 2/0 | 3.0/0.0 |
| Aerial Gunnery | 6/0 | 9.0/0.0 |
| Night Systems | 1/0 | 1.5/0.0 |
| Tactics | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 12/0 | 18.0/0.0 |
| COMBINED TOTALS | 12 | 18.0 |
| ACCUMULATION FOR CONVERSION AO POI | 21 | 32.5 |

3. Core Skill Advanced Phase

| STAGE | NO. EVENTS | NO. HOURS |
|---|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Advanced Night Systems Qualification | 2/0 | 3.0/0.0 |
| Aerial Gunnery | 3/0 | 4.5/0.0 |
| Tactics | 2/0 | 3.0/0.0 |
| TOTAL FOR PHASE | 7/0 | 10.5/0.0 |
| COMBINED TOTALS | 7 | 10.5 |
| ACCUMULATION FOR CONVERSION AO POI | 28 | 43.0 |

4. Core Skill Plus Phase

| STAGE | NO. EVENTS | NO. HOURS |
|------------------------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Defensive Air Combat Maneuvers | 6/0 | 6.5/0.0 |
| Nuclear, Biological, & Chemical | 1/0 | 1.5/0.0 |
| Carrier Qualification | 5/0 | 5.0/0.0 |
| TOTAL FOR PHASE | 12/0 | 12.5/0.0 |
| COMBINED TOTALS | 12 | 12.5 |
| TOTAL FOR CONVERSION AO POI | 40 | 55.5 |

224. FLIGHT TRAINING FOR REFRESHER CREW CHIEF1. Core Skill Introduction Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS |
|---------------------------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Familiarization | 3/0 | 4.5/0.0 |
| Formation | 1/0 | 1.5/0.0 |
| Terrain Flight | 1/0 | 1.5/0.0 |
| Navigation | 1/0 | 1.5/0.0 |
| Aerial Gunnery | 1/0 | 1.5/0.0 |
| Confined Area Landings | 1/0 | 1.5/0.0 |
| Core Skill Introduction Evaluation | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 9/0 | 13.5/0.0 |
| COMBINED TOTALS | 9 | 13.5 |
| ACCUMULATION FOR REFRESHER POI | 9 | 13.5 |

2. Core Skill Basic Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS |
|---------------------------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Terrain Flight/Navigation | 1/0 | 1.5/0.0 |
| Confined Area Landings | 2/0 | 3.0/0.0 |
| Aerial Gunnery | 3/0 | 4.5/0.0 |
| Night Systems | 1/0 | 1.5/0.0 |
| Tactics | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 8/0 | 12.0/0.0 |
| COMBINED TOTALS | 8 | 12.0 |
| ACCUMULATION FOR REFRESHER POI | 17 | 25.5 |

3. Core Skill Advanced Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS |
|---------------------------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Advanced Night Systems Qualification | 1/0 | 1.5/0.0 |
| Aerial Gunnery | 3/0 | 4.5/0.0 |
| Escort | 1/0 | 1.5/0.0 |
| Tactics | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 6/0 | 9.0/0.0 |
| COMBINED TOTALS | 6 | 9.0 |
| ACCUMULATION FOR REFRESHER POI | 23 | 34.5 |

4. Core Skill Plus Phase

| <u>STAGE</u> | NO. EVENTS | NO. HOURS |
|---------------------------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Helicopter Insertion/Extraction (HIE) | 3/0 | 3.0/0.0 |
| Defensive Air Combat Maneuvers | 6/0 | 6.5/0.0 |
| Nuclear, Biological, & Chemical | 1/0 | 1.5/0.0 |
| Carrier Qualification | 5/0 | 5.0/0.0 |
| TOTAL FOR PHASE | 15/0 | 16.0/0.0 |
| COMBINED TOTALS | 15 | 16.0 |
| TOTAL FOR REFRESHER POI | 38 | 50.5 |

225. FLIGHT TRAINING FOR REFRESHER AERIAL OBSERVER1. Core Skill Introduction Phase

| STAGE | NO. EVENTS | NO. HOURS |
|--|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Familiarization | 1/0 | 1.5/0.0 |
| Formation | 2/0 | 3.0/0.0 |
| Terrain Flight | 1/0 | 1.5/0.0 |
| Navigation | 1/0 | 1.5/0.0 |
| Aerial Gunnery | 1/0 | 1.5/0.0 |
| Confined Area Landings | 1/0 | 1.5/0.0 |
| Core Skill Introduction Evaluation | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 8/0 | 12.0/0.0 |
| COMBINED TOTALS | 8 | 12.0 |
| ACCUMULATION FOR REFRESHER AO POI | 8 | 12.0 |

2. Core Skill Basic Phase

| STAGE | NO. EVENTS | NO. HOURS |
|--|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Terrain Flight/Navigation | 1/0 | 1.5/0.0 |
| Confined Area Landings | 1/0 | 1.5/0.0 |
| Aerial Gunnery | 3/0 | 4.5/0.0 |
| Night Systems | 1/0 | 1.5/0.0 |
| Tactics | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 7/0 | 10.5/0.0 |
| COMBINED TOTALS | 7 | 10.5 |
| ACCUMULATION FOR REFRESHER AO POI | 15 | 22.5 |

3. Core Skill Advanced Phase

| STAGE | NO. EVENTS | NO. HOURS |
|--|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Advanced Night Systems Qualification | 1/0 | 1.5/0.0 |
| Aerial Gunnery | 3/0 | 4.5/0.0 |
| Tactics | 1/0 | 1.5/0.0 |
| TOTAL FOR PHASE | 5/0 | 7.5/0.0 |
| COMBINED TOTALS | 5 | 7.5 |
| ACCUMULATION FOR REFRESHER AO POI | 20 | 29.5 |

4. Core Skill Plus Phase

| STAGE | NO. EVENTS | NO. HOURS |
|--|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Defensive Air Combat Maneuvers | 6/0 | 6.5/0.0 |
| Nuclear, Biological, & Chemical | 1/0 | 1.5/0.0 |
| Carrier Qualification | 5/0 | 5.0/0.0 |
| TOTAL FOR PHASE | 12/0 | 13.0/0.0 |
| COMBINED TOTALS | 12 | 13.0 |
| ACCUMULATION FOR REFRESHER AO POI | 32 | 42.5 |

226. FLIGHT TRAINING FOR INSTRUCTOR CREW CHIEF

| STAGE | NO. EVENTS | NO. HOURS |
|-----------------------|-----------------|-----------------|
| | <u>ACFT/SIM</u> | <u>ACFT/SIM</u> |
| Instructor Crew Chief | 2/0 | 3.0/0.0 |
| TOTAL | 2 | 3.0 |

227. GRADUATE LEVEL COURSES

1. There are 7 graduate level courses that qualify instructors for specific portions of the T&R syllabus. These courses are as follows:

- a. Weapons and Tactics Instructor (WTI).
- b. Night Systems FAM Instructor (NSFI).
- c. Night Systems Instructor (NSI).
- d. Night Systems SAR Instructor (NSSI).
- e. Terrain Flight Instructor (TERFI).
- f. Defensive Air Combat Maneuvers Instructor (DACMI).
- g. Aerial Gunnery Instructor (AGI).

2. The above courses requirements for instructor certification and their respective training codes are listed in the MAWTS-1 Course Catalog.

228. SIMULATOR TRAINING. Although a current flight simulator for crew chiefs or AOs does not exist, a request is in process.

229. EVENT TRAINING. The aircraft is used for those events designated with an A and the flight simulator is used for those events designated with an S. To give commanding officers the maximum amount of flexibility for training, some events allow for the optional use of simulators or aircraft. Those events will use A/S for aircraft preferred, simulator optional and S/A for simulator preferred, aircraft optional.

230. FLIGHT/SIMULATOR PERFORMANCE REQUIREMENTS

1. General

a. This Manual generalizes mission guidance to allow for varying local conditions and allows this Manual to remain unclassified. DC AVN and CG MCCDC encourage squadrons to use the full range of tactics in tactical manuals and adopt the latest developed and proven tactics.

b. This Manual designs the Core Skill Introduction phase for an instructor and trainee to maximize training and to minimize syllabus support hours.

c. All events shall terminate with a comprehensive debrief with emphasis on aircrew performance using all evaluation techniques.

d. Aircrew shall fly events annotated with an N at least 30 minutes after official sunset. Aircrew may fly events annotated with (N) at night.

e. Aircrew shall fly events annotated with an NS with NVGs for the entire flight. Aircrew may fly events annotated with "(NS)" using NVGs.

f. Crew Chief Under Instruction (CCUI) shall complete the appropriate FRS ground school instruction prior to commencement of flight training.

2. Squadron Syllabus Assignment

a. Basic Crew Chiefs and Aerial Observers. Basic Crew Chiefs (CC) and Aerial Observers (AO) will be assigned to fly the entire syllabus. Transition CCs and AOs shall fly the basic syllabus. Conversion and Refresher CCs and AOs will fly those events designated by a C or R respectively in the flight description. The squadron training officer shall

enter all Aircrew Training Forms (ATFs) in section 3 of the APR. These ATFs will replace ATFs previously entered in section 3. Figures 2-2/2-3 show refly interval and Combat Readiness Percentage (CRP).

b. Secondary MOS CCs. To alleviate inventory shortages of primary MOS crew chiefs, authority is granted to individual unit commanders to train and designate personnel as secondary MOS 6174 only. The source population is restricted to personnel that are from within the 61xx occupational field. Waivers for other MOSs may be requested via DC AVN (ASM) on a case-by-case basis.

(1) The number of secondary MOS CCs that a unit commander is authorized to designate is limited to the current staffing formula, $1.6 \text{ CC} \times \text{PAA} = \text{\#CCs}$, minus primary designated CCs assigned. On-hand primary MOS CCs shall have priority for crewmember orders and hazardous duty incentive pay.

(2) Secondary MOS CCs complete normal NATOPS requirements to include flight physical, physiology, and water survival prior to flight. Consideration should be made for SERE training.

(3) If secondary MOS CCs are already designated AOs they only need to complete Core Skill Introduction phase events not previously completed. Otherwise, the entire phase must be completed.

(4) Prior to designation by the unit commander, the respective FRS instructor or MAG Enlisted NATOPS Standardization Evaluator shall certify the individual's qualification to ensure MOS standardization. This evaluation shall follow all the same procedures as a primary MOS CC evaluation IAW NATOPS.

3. Aircrew Evaluation Flights. All Aircrew shall have a NATOPS evaluation form completed upon completion of either CSIX-181 or RQD-601.

4. Aircrew Training Forms (ATFs)

a. An ATF is required for any initial flight of any sortie completed by a Basic, Transition, Conversion, or Refresher pilot or as recommended by the squadron Standardization Board.

b. If the commanding officer has waived/deferred a syllabus sortie, the squadron training officer shall place a waiver/deferral letter in section 3 of the APR.

c. MAWTS-1 will maintain an ATF database that establishes minimum requirements for each syllabus event. Access for individual units will be possible at the MAWTS-1 website.

5. Instructor Requirements

a. The minimum instructor requirements are listed in the Crew Requirements section of each event.

b. CCUI may complete any flight not requiring an instructor with a CC that is proficient and qualified in that stage of training. CCI must be designated to instruct in a particular stage of training.

c. Instructors are required for any event that requires an NSI, AGI, TERFI or DACMI.

6. Event Completion. Compliance with the written event description is mandatory for syllabus event completion. Times indicated for each event are only recommendations.

7. Sequence. Training should be accomplished by flying events within a stage in sequence and stages in sequence when practical.

8. Definitions

a. Discuss

(1) The instructor shall discuss a procedure or task during the brief, inflight, or de-brief.

(2) The CCUI is responsible for knowledge of the applicable procedures prior to briefing.

b. Demonstrate

(1) The instructor performs the task or crew function.

(2) The CCUI observes and is responsible for the knowledge of the task or crew function prior to the flight.

c. Introduce

(1) At his option, the instructor may perform the task or crew function with an accompanying description, or he may coach the CCUI without demonstration.

(2) The CCUI shall perform the task or crew function with coaching as necessary and is responsible for all applicable knowledge prior to the flight.

d. Review

(1) The instructor observes and grades the CCUI without coaching. An airborne critique of the CCUI's performance is at the option of the instructor.

(2) The CCUI is expected to perform the tasks or crew functions without coaching and be devoid of procedural error at a level acceptable to warrant progress into the next stage of training.

231. CORE SKILL INTRODUCTION PHASE

1. Purpose. To develop a Core Skill Introduction CC/AO. At the completion of this phase the CCUI/AOUI will be designated CC/AO, NATOPS qualified and rate the 6174 MOS as specified in the CSIX-181.

2. General. Completion of this phase meets the requirements for the CCUI/AOUI to be designated a CC/AO. At the discretion of the squadron commanding officer a letter designating the CCUI/AOUI a CC/AO shall be placed in the NATOPS jacket, APR and a tracking code of RQD-601 shall be logged. Proficiency will have been gained in FAM, FORM, TERF, NAV, CAL and SWD. NVDs will be utilized during the FAM, FORM, TERF, NAV and CAL stages.

3. Familiarization (FAM)

a. Purpose. To become familiar with flight characteristics, aircraft systems, limitations, and emergency procedures. Develop proficiency in assisting pilots in all aspects of FAM flight, both day and night.

b. General

(1) At the completion of this stage, the CCUI/AOUI should be able to demonstrate the ability to assist pilots in all aspects of FAM flight, both day and night.

(2) AOUI Requirement: FAM-101, FAM-115.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. UH-1N aircraft familiarization must be completed prior to flight training.

e. Flight Training. (4 Sorties, 6.0 Hours).

FAM-101

1.5

1 UH-1N A

Goal. Introduce normal ground and flight procedures.

Requirements

(1) Brief/discuss engine fire on ground and fire in the aircraft on the ground.

(2) Introduce duties of the CC to include preflight, starting, taxi, takeoff, inflight lookout, landing, and postflight procedures.

(3) Demonstrate use of ICS, voice procedures, sighting, using clock systems, and estimating distance.

Performance Standards. Display knowledge of ICS voice procedures, CC duties to include preflight, starting, taxi/takeoff, inflight, landing, all applicable emergency procedures.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

FAM-102

1.5

C,R 1 UH-1N A

Goal. Introduce communications, passenger procedures, normal and emergency procedures.

Requirements

(1) Brief/discuss takeoff and landing emergencies, fire in flight, smoke elimination, ditching procedures, aircraft engine and transmission limitations.

(2) Introduce the duties of the CC during precautionary/emergency landings, including autorotations.

(3) Introduce communication/navigation equipment and CDNU. Introduce passenger brief, include passenger emergency procedures.

(4) Introduce aircraft weight and balance calculations and CC responsibilities in loading.

Performance Standards. Display knowledge of ICS voice procedures, CC duties to include preflight, starting, taxi/takeoff, inflight, landing, all applicable emergency procedures.

Prerequisite. FAM-101.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

FAM-112

1.5 C,R 1 UH-1N A N

Goal. Unaided night introduction.

Requirement

(1) Review preflight, starting, taxi, takeoff, landing, postflight procedures, and aircraft radio operation.

(2) Review the duties of the CC during precautionary/emergency landings with emphasis on night operations.

(3) Introduce night preflight/postflight, aircraft lighting systems, airfield lighting/terminology, and night lookout.

Performance Standards. Display knowledge of night operations and demonstrate ability to perform CC duties in night environment.

Prerequisite. FAM-102.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

FAM-115

1.5 C,R 1 UH-1N A NS

Goal. Introduce NVD techniques during HLL.

Requirements

(1) Brief/discuss NVD preflight/adjustment/focusing, NVD eye lane, ANV-20-20 Eye Lane System Resolution Test Set use; NVD emergencies/malfunctions, aircraft emergencies while using NVDs, and aircrew coordination.

(2) Introduce the wear and use of NVDs.

Performance Standards. Display ability to perform CC duties using NVDs.

Prerequisite. FAM-112.

Ordnance. N/A.

External Syllabus Support. N/A.

Crew. NSFII or NSI/CCUI or AOUI.

4. Formation (FORM)

a. Purpose. To become familiar with crew functions and responsibilities required during formation flying.

b. General. AOUI requirements: FORM-131, FORM-132.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. IAW FRS Trainee Guide for Crew Chief Under Instruction Training Course.

e. Flight Training. (2 Sorties, 3.0 Hours).

FORM-131 1.5 C,R 2 UH-1N A

Goal. Introduce tactical formations.

Requirement

(1) Brief/discuss combat cruise, combat spread, TAC turns, cross turns, split turns, and break turns.

(2) Discuss ordnance delivery patterns.

(3) Introduce CC responsibilities associated with tactical formations and maneuvers.

(4) Review hand and arm signals, lookout procedures, and CC responsibilities associated with formation flying.

Performance Standards. Display thorough knowledge of tactical formation maneuvers. Demonstrate proficiency assisting pilots in tactical formation maneuvers.

Prerequisite. FAM-102.

Ordnance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

FORM-132 1.5 C,R 2 UH-1N A NS

Goal. NVD FORM introduction.

Requirement. Review hand and arm signals, lookout procedures, and CC responsibilities associated with formation flying at night.

Performance Standards. Demonstrate proficiency assisting pilots in night formation maneuvers.

Prerequisite. FAM-115, FORM-131.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSFII or NSI/CCUI or AOUI.

5. Terrain Flight (TERF)

a. Purpose. To develop aircrew coordination required during TERF.

b. General

(1) At the completion of this stage, the CCUI/AOUI will be able to demonstrate the ability to assist the pilot in TERF.

(2) AOUI requirement: TERF-140, TERF-141.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. Per FRS Trainee Guide for Crew Chief Under Instruction Training Course

e. Flight Training. (2 Sorties, 3.0 Hours).

| | | |
|-----------------|------------|------------------|
| <u>TERF-140</u> | <u>1.5</u> | <u>1 UH-1N A</u> |
|-----------------|------------|------------------|

Goal. Introduce TERF techniques.

Requirement

(1) Brief/discuss aircraft clearance and aircraft emergencies during TERF altitudes.

(2) Introduce: blade walk, power checks, masking/unmasking, NOE quickstops, bunt, roll, low level, contour, and NOE profiles emphasizing vertical relief of the earth and vegetation.

Performance Standards. Display knowledge and ability to assist pilots in TERF environment.

Prerequisite. FAM-102.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. TERFI/CCUI or AOUI.

TERF-141 1.5 C,R 1 UH-1N A NS

Goal. Introduce TERF techniques using NVDs.

Requirement

(1) Brief/discuss NVD considerations in the TERF environment.

(2) Introduce blade walk, power checks, masking/unmasking, NOE quickstops, bunt, roll, low level, contour, and NOE profiles emphasizing vertical relief of the earth and vegetation with NVGs.

Performance Standards. Display knowledge and ability to assist pilots in TERF environment while using NVDs.

Prerequisite. FAM-115, TERF-140.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSFII or NSI/CCUI or AOUI.

6. Navigation Flight (NAV)

a. Purpose. To become familiar with crew functions and responsibilities while navigating without use of radio navigational aids.

b. General

(1) At the completion of this stage, the CCUI/AOUI will be able to demonstrate the ability to assist the pilots in all phases of inflight navigation.

(2) AOUI requirement. NAV-152.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. Per FRS Trainee Guide for Crew Chief Under Instruction Training Course.

e. Flight Training. (2 Sorties, 3.0 Hours).

NAV-151 1.5 1 UH-1N

Goal. Introduce aircrew duties during TERF navigation.

Requirement

(1) Review lookout and aircrew coordination required during TERF.

(2) Introduce the use of checkpoints, time distance checks, barrier features, prominent terrain features, map legend, and map preparation.

Performance Standards. Display ability to assist pilots in TERF navigation.

Prerequisite. FAM-102 and TERF-140.

Ordnance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

NAV-152

1.5 C,R 1 UH-1N NS

Goal. Introduce night navigation on NVDs.

Requirement

(1) Brief/discuss HLL, LLL, effects of moon angle and meteorological effects on NVDs.

(2) Introduce the use of checkpoints, time distance checks, barrier features and prominent terrain features while using NVDs and NVD map preparation.

Performance Standards. Display knowledge and ability to assist pilots in navigation while using NVDs.

Prerequisite. FAM-115.

Ordnance. N/A.

External Syllabus Support. N/A.

Crew. NSFII or NSI/CCUI or AOUI.

7. Specific Weapons Delivery (SWD)

a. Purpose. To familiarize the aircrew with the procedures required to provide fire on targets of opportunity.

b. General

(1) At the completion of this stage, the CCUI/AOUI will be able to demonstrate knowledge of weapons systems and ordnance delivery with crew served weapons.

(2) AOUI requirements: SSWD-160 and SWD-161.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. Per FRS Trainee Guide for Crew Chief Under Instruction Training Course.

e. Simulator Training. (1 Event, 1.0 Hour).

f. Flight Training. (1 Sortie, 1.5 Hours).

SSWD-160

1.0 S

Goal. Introduce weapons and checklist procedures.

Requirement. Introduce ordnance loading, preflight, operations, postflight, safety procedures, weapons conditions and ordnance weapons checklist. When range is available for simulator, practice firing on prebriefed targets with crew

served weapons, stressing aircrew coordination and weapons safety.

Performance Standards. Display knowledge and ability to safely employ crew served weapons per applicable checklists.

Prerequisite. N/A.

Ordnance. 1500 rds GAU-17 or 300 rds GAU-16 or 400 rds M-240.

External Syllabus Support. UH-1N Deck Simulator Assembly.

Crew. AGI/CCUI or AOUI.

SWD-161

1.5 C,R 1 UH-1N A

Goal. Introduce aerial gunnery training.

Requirement

(1) Discuss attack patterns, section operations, sighting procedures, malfunction/stoppage procedures and WORM formula.

(2) Demonstrate/introduce ordnance loading, preflight, operations, postflight, safety procedures, weapons conditions and ordnance weapons checklist.

(3) Practice firing on prebriefed targets with crew served weapons, stressing aircrew coordination and weapons safety.

Performance Standards. Display knowledge and ability to safely employ crew served weapons IAW applicable checklists.

Prerequisite. FAM-102, SSWD-160.

Ordnance. 1500 rds GAU-17 or 300 rds GAU-16 or 400 rds M-240.

External Syllabus Support. Aerial gunnery range.

Crew. AGI/CCUI or AOUI.

8. Confined Area Landings (CAL)

a. Purpose. To become familiar with crew responsibilities during operations in confined areas. All aspects of aircrew coordination shall be thoroughly briefed.

b. General

(1) At the completion of this stage, the CCUI/AOUI will be able to demonstrate the ability to assist the pilot in all aspects of CALs.

(2) AOUI requirements: CAL-171, CAL-172.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. Per FRS Trainee Guide for Crew Chief Under Instruction Training Course.

e. Flight Training. (3 Sorties, 4.5 Hours).

CAL-1701.51 UH-1N A

Goal. Introduce confined area operations, to include HIE approaches.

Requirement

(1) Brief/discuss power settling, landing zone brief, dynamic rollover, slope landings and aircrew coordination.

(2) Introduce lookout procedures required to assist the pilot when operating in a confined area, HIE approaches stressing safety procedures, aircraft clearance from obstacles, and terrain suitability.

Performance Standards. Display ability to safely conduct CALs and HIE approaches per NATOPS.

Prerequisite. FAM-102.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

CAL-1711.5C 1 UH-1N A

Goal. Introduce tactical CAL approaches.

Requirement

(1) Brief/discuss threat conditions, tactical approaches and departures. Reference UH-1N Tactical Manual.

(2) Introduce procedures required to assist the pilot when operating in a low to high threat environment. Stress safety procedures, aircraft clearance from obstacles, and terrain suitability.

Performance Standards. Display ability to safely conduct tactical CALs and HIE approaches per NATOPS.

Prerequisite. CAL-170.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

CAL-1721.5C,R 1 UH-1N A N NS

Goal. Introduce night unaided to aided CALs.

Requirement

(1) Brief/discuss brown/white out and the effects of moisture; emphasize aircrew coordination.

(2) Introduce procedures required to assist the pilot when operating in a confined area at night. Stress safety procedures, aircraft clearance from obstacles, terrain suitability, and the use of ground lighting systems.

Performance Standards. Display ability to safely conduct CALs and HIE approaches IAW NATOPS while using NVDs.

Prerequisite. FAM-115, CAL-170.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSFII or NSI/CCUI or AOUI.

9. External Weights (EXT)

a. Purpose. To introduce the CCUI to operations while using the hook and hoist.

b. General. At the completion of this stage, the CCUI will be able to demonstrate knowledge and ability to safely conduct hook/hoist operations.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Per FRS Trainee Guide for Crew Chief Under Instruction Training Course.

e. Flight Training. (1 Sortie, 1.5 Hours).

EXT-175 1.5 C UH-1N A

Goal. Introduce external load/hoist procedures.

Requirement

(1) Brief/discuss aircrew coordination, hand and arm signals, ICS terminology, hook/hoist limitations/malfunctions, load release, and emergency procedures.

(2) Brief/discuss the use of Chicago grip, quick splice, and cable cutters.

(3) Introduce

(a) Operational check of hoist/hook.

(b) Use of rescue strop and jungle penetrator.

(c) Cargo hook pendant and manual release.

(d) Emergency procedures for external hook/rescue hoist.

(4) Conduct at least 2 hook-up, flight and release operations for cargo hook. Two hoisting operations using a suitable weight.

Performance standards. Demonstrate proper ICS terminology, hook/hoist operation and installation.

Prerequisite. FAM-102.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

10. Crew Chief/Aerial Observer Core Skill Introduction Check (CSIX)

a. Purpose. To evaluate proficiency in the performance of Core Skill Introduction CC/AO duties per UH-1N NATOPS Manuals.

b. General. Completion of this stage meets the requirements for designation as a CC and MOS 6174 or AO. This sortie will serve as the initial NATOPS Evaluation.

c. Crew Requirements. Initial CSIX-181 for CCUI must be conducted by FRS or NATOPS Evaluator. Initial CSIX-181 for AOUI may be conducted by squadron NATOPS Instructor/Assistant NATOPS Instructor.

d. Ground/Academic Training. Open and closed book tests must be successfully completed per appropriate UH-1N NATOPS Flight Manuals prior to Core Skill Introduction evaluation flight.

e. Flight Training. (1 Sortie, 1.5 Hours).

CSIX-181 2.0 C,R E 1 UH-1N A

Goal. Core Skill Introduction Check.

Requirement. Conduct a CC/AO NATOPS evaluation per criteria in the UH-1N NATOPS manuals.

Performance Standards. Per NATOPS Flight Manual.

Prerequisite. Core Skill Introduction phase complete. AO prereqs are FAM-102, 115; FORM-131, 132; TERF-140, 142; NAV 151; AG-160, 161; CAL-170, 172.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NE, NI OR ANI/CCUI or AOUI.

232. CORE SKILL BASIC PHASE

1. Purpose. To produce a TERF/CAL and NSQ (HLL) qualified CC/AO.

2. General

a. After completing CAL-223, a TERF/CAL qualification letter signed by the commanding officer shall be placed in the NATOPS with a copy in the APR and a flight logbook entry.

b. After completing TAC-261, a NSQ (HLL) qualification letter signed by the commanding officer shall be placed in the NATOPS with a copy in the APR and a flight logbook entry.

c. All NS flights in this phase of training shall be flown under HLL conditions.

3. Ground Training. Requirements are listed per stage of flight and must be completed prior to the associated stage of flight.

4. Terrain Flight/Navigation (TERF)

a. Purpose

(1) To become proficient with crew functions and responsibilities while navigating without the use of radio navigational aids at TERF altitudes.

(2) To become familiar with CC responsibilities during formation flight in the TERF environment.

b. General. AOUI Requirement: TERF-210, 211.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. Review the appropriate section of the UH-1N MAWTS-1 Academic Support Package lectures.

e. Flight Training. (2 Sorties, 3.0 Hours).

TERF-210 1.5 C 1 UH-1N A

Goal. Review TERF maneuvers and navigation.

Requirement

(1) Review the use of checkpoints, time distance checks, barrier features, prominent terrain features, map legend, map preparation, hand and arm signals.

(2) Introduce flight in the low level, contour and NOE profiles.

(3) Flight to be completed in contour/NOE mode.

Performance Standards. Demonstrate the ability to perform and understand TERF navigation.

Prerequisite. CSIX-181.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. TERFI/CCUI or AOUI.

TERF-211 1.5 C,R 2 UH-1N A NS

Goal. Review TERF navigation while using NVDs.

Requirement

(1) Demonstrate lookout procedures required to assist the pilot when operating in a TERF environment. Stress safety

procedures, aircraft clearance from obstacles, and terrain suitability while using NVDs.

(2) Demonstrate the use of checkpoints, time distance checks, barrier features, prominent terrain features, map legend, and map preparation while using NVDs.

(3) Review use of AVN-20-20 Eye Lane System Resolution Test Set.

Performance Standards. Demonstrate the ability to safely execute TERF navigation while using NVDs.

Prerequisite. TERF-210.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSI/CCUI or AOUI.

5. Night Systems (NS)

a. Purpose. To develop the ability to use thermal imaging to increase situational awareness, aircrew coordination, and gain familiarity with laser range finding.

b. General

(1) The CCI shall be familiar with the use of the Night Thermal Imaging System (NTIS). The CCUI and AOUI will safely conduct operational tasks prior to and during NTIS operations.

(2) AOUI Requirement: NS-215.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. To be accomplished prior to any flight training in this phase. Review the UH-1N Tactical Manual, Chapter 23 (NTIS), MAWTS-1 Laser Safety Lecture.

e. Flight Training. (1 Sortie, 1.5 Hours).

| | | |
|---------------|------------|-------------------------|
| <u>NS-215</u> | <u>1.5</u> | <u>C,R 1 UH-1N A NS</u> |
|---------------|------------|-------------------------|

Goal. Familiarize the CCUI and AOUI with terminology, preflight, postflight, switchology and flight operation of NTIS.

Requirement

(1) Discuss terminology, Laser Safety procedures and specific aircrew training issues during NTIS operations.

(2) Demonstrate a thorough understanding of the NTIS, its components (TFU, CEU, HCU, VDU, and VCR), NTIS power-up procedures and knowledge of operations.

Performance Standards. Demonstrate basic knowledge and understanding of FLIR/NTIS operations.

Prerequisite. TERF-211.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSI/CCUI or AOUI.

6. Confined Area Landings (CAL)

a. Purpose

(1) To develop aircrew coordination when operating in a confined area.

(2) To develop proficiency to conduct operations while using NVDs.

b. General

(1) After successfully completing CAL-223, a TERF/CAL qualification letter signed by the commanding officer shall be placed in the NATOPS with a copy in the APR and a flight log book entry.

(2) AOUI requirement: CAL-220, 223.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. NA.

e. Flight Training. (3 Sorties, 4.5 Hours).

CAL-220 1.5 C 2 UH-1N A

Goal. Introduce section CAL operations and HIE approaches.

Requirement

(1) Review procedures to assist the pilot when operating in a confined area.

(2) Review formation and lookout procedures stressing responsibilities during section operations.

Performance Standards. Demonstrate the ability to assist pilots in operating in a confined area to include proper crew coordination, aircraft clearance, and wingman awareness.

Prerequisite. TERF-210.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. TERFI/CCUI or AOUI.

CAL-221

1.5

C,R 2 UH-1N A NS

Goal. Introduce section CAL operations and HIE approaches while using NVDs.

Requirement

(1) Review procedures to assist the pilot when operating in confined areas with NVDs.

(2) Introduce crew responsibilities relative to section operations while using NVDs.

Performance Standards. Demonstrate the ability to assist pilots during section operations in confined areas and HIE approaches while using NVDs.

Prerequisite. TERF-211 and CAL-220.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSI/CCUI or AOUI.

CAL-223

1.5

C,R 2 UH-1N A NS

Goal. Display proficiency during section CAL operations and HIE approaches while using NVDs.

Requirement

(1) Review procedures to assist the pilot when operating in confined areas with NVDs.

(2) Introduce crew responsibilities relative to section operations while using NVDs.

Performance Standards. Display proficiency during section operations in confined areas and HIE approaches while using NVDS.

Prerequisite. CAL-221.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. NSI/CCUI or AOUI.

7. Specific Weapons Delivery (SWD)

a. Purpose. To develop proficiency in conducting SWD ordnance delivery.

b. General

(1) Upon successful completion of this stage the CCUI/AOUI will be able to demonstrate knowledge of weapons systems and proficiency in BCWD with crew served weapons. Each flight in this stage will be completed with appropriate documentation to include ATFs with round counts.

(2) AOUI Requirements. SWD-240 through SWD-245.

(3) Section operations should be used if available.

(4) Weapon mounted lasers should be used for all NVD flights.

c. Crew Requirements. As listed at the end of each event.

d. Ground/Academic Training. Review MAWTS-1 Academic Support Package lectures, Aerial Gunnery Manual and applicable weapons checklist. Prior to commencing each flight, the CCUI/AOUI shall receive appropriate ground training by an aerial gun instructor for the respective weapon and laser usage.

e. Flight Training. (6 Sorties, 9.0 Hours).

SWD-240 1.5 C 1 UH-1N A

Goal. Introduce GAU-16, .50 caliber machine gun.

Requirement. Introduce ordnance loading, preflight, operations, postflight, and safety procedures associated with ordnance evolutions. Practice firing on prebriefed targets with crew served weapons while stressing aircrew coordination.

Performance Standards. Demonstrate basic knowledge of nomenclature, cycle of operation and ability to safely and effectively employ the GAU-16.

Prerequisite. SWD-161, CAL-220.

Ordnance. 300 rds .50 cal GAU-16.

External Syllabus Support. Aerial gunnery range.

Crew. AGI/CCUI or AOUI.

SWD-241 1.5 C 1 UH-1N A

Goal. Introduce GAU-17.

Requirement. Introduce ordnance loading, preflight, operations, postflight, and safety procedures associated with ordnance evolutions. Practice firing on prebriefed targets with crew served weapons while stressing aircrew coordination.

Performance Standards. Demonstrate basic knowledge of nomenclature, cycle of operation and ability to safely and effectively employ the GAU-17.

Prerequisite. SWD-161, CAL-220.

Ordnance. 1500 rds 7.62 mm GAU-17.

External Syllabus Support. Aerial gunnery range.

Crew. AGI/CCUI or AOUI.

SWD-2421.5 C 1 UH-1N AGoal. Introduce M-240.

Requirement. Introduce ordnance loading, preflight, operations, postflight, and safety procedures associated with ordnance evolutions. Practice firing on prebriefed targets with crew served weapons stressing aircrew coordination.

Performance Standards. Demonstrate basic knowledge of nomenclature, cycle of operation and ability to safely and effectively employ the M-240.

Prerequisite. SWD-161, CAL-220.

Ordnance. 400 rds 7.62 mm M-240.

External Syllabus Support. Aerial gunnery range.

Crew. AGI/CCUI or AOUI.

SWD-2431.5 C,R 1 UH-1N A NS

Goal. Introduce GAU-16 gunnery while using NVDs.

Requirement. Introduce ordnance loading, preflight, operations, postflight, and safety procedures associated with ordnance evolutions. Practice firing on prebriefed targets with crew served weapons, stressing aircrew coordination while using NVDs.

Performance Standards. Demonstrate detailed knowledge of nomenclature, cycle of operation, BCWD and ability to safely and effectively employ the GAU-16 while using NVDs.

Prerequisite. CAL-223, SWD-240.

Ordnance. 300 rds .50 cal GAU-16.

External Syllabus Support. Aerial gunnery range.

Crew. NSI/CCUI or AOUI.

SWD-2441.5 C,R 1 UH-1N A NS

Goal. Introduce GAU-17 gunnery while using NVDs.

Requirement. Introduce ordnance loading, preflight, operations, postflight, and safety procedures associated with ordnance evolutions. Practice firing on prebriefed targets with crew served weapons, stressing aircrew coordination while using NVDs.

Performance Standards. Demonstrate detailed knowledge of nomenclature, cycle of operation, BCWD and ability to safely and effectively employ the GAU-17 while using NVDs.

Prerequisite. CAL-223, SWD-241.

Ordnance. 1500 rds 7.62 mm GAU-17.

External Syllabus Support. Aerial gunnery range.

Crew. NSI/CCUI or AOUI.

SWD-245

1.5

C,R 1 UH-1N A NS

Goal. Introduce M-240 gunnery while using NVDs.

Requirement. Introduce ordnance loading, preflight, operations, postflight, and safety procedures associated with ordnance evolutions. Practice firing on prebriefed targets with crew served weapons, stressing aircrew coordination while using NVDs.

Performance Standards. Demonstrate detailed knowledge of nomenclature, cycle of operation, BCWD and ability to safely and effectively employ the M-240 while using NVDs.

Prerequisite. CAL-223, SWD-242.

Ordnance. 400 rds 7.62 mm M-240.

External Syllabus Support. Aerial gunnery range.

Crew. NSI/CCUI or AOUI.

8. Escort (ESC)

a. Purpose. To develop proficiency in CC and SWD duties during heliborne or surface escort formations and maneuvers per current tactical doctrine.

b. General. Aircrew will develop a working knowledge of escort formations, maneuvers, and responsibilities associated with heliborne operations.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. Review the MAWTS-1 Course Catalog Section IV, UH-1N, Escort for appropriate courses.

e. Ordnance. Ordnance is optional for this stage of training.

f. Flight Training. (1 Sortie, 1.5 Hours).

ESC-250

1.5

C 2 OR MORE ACFT A (N)(NS)

Goal. Introduce helicopter escort procedures (day or night).

Requirement

(1) Discuss escort flight aircrew responsibilities.

(2) Introduce basic escort principles, formations, techniques and responsibilities per tactical doctrine for helicopters and surface vehicles.

(3) Brief and review lookout doctrine and sectors of fire.

Performance Standards. Demonstrate the ability to safely and effectively employ crew served weapons while operating as escort aircraft.

Prerequisite. CAL-223. If flown at night with ordnance, one of the following: SWD-243, SWD-244, or SWD-245.

Ordnance. 1500 rds 7.62 mm GAU-17, 300 rounds .50 Cal GAU-16, 400 rds 7.62 mm M-240.

External Syllabus Support. Two or more assault helicopters, aerial gunnery range.

Crew. AGI (NSI)/CCUI or AOUI.

9. Tactics (TAC)

a. Purpose. To develop crew resource management required for tactical missions, to be flown under HLL.

b. General

(1) At the completion of this stage, the CCUI/AOUI will be able to demonstrate the ability to assist the pilot in the conduct of a tactical mission. Completion of this stage meets the requirements for qualification as Night Systems Qualified High Light Level [NSQ (HLL)]. A qualification letter shall be placed in the NATOPS Jacket with a copy in the APR and a flight logbook entry. These flights shall be conducted per MCO 3501.4, MCCRES, Volume III, Section C.

(2) AOUI requirement: TAC-261.

c. Ground/Academic Training. Review required MAWTS-1 Academic Support Package Lectures.

d. Crew Requirement. As listed at the end of each event.

e. Flight Training. (1 Sortie, 1.5 Hours).

TAC-261 1.5 C,R 2 UH-1N A NS

Goal. Introduce tactical CC responsibilities.

Requirement

(1) Introduce CC responsibilities assisting the pilot in accomplishing tactical missions to include threat profiles, HIE and ordnance considerations.

(2) Demonstrate the ability to perform CC duties in the night TERF/CAL environment.

(3) Crew served ordnance shall be used during the conduct of this flight if available.

Performance Standards. Display ability to perform aircrew responsibilities in a tactical environment.

Prerequisite. CAL-223, NS-215, and one of the following: SWD-243, SWD-244, or SWD-245.

Ordnance. 1500 rds GAU-17 or 300 rds GAU-16 or 400 rds M-240.

External Syllabus Support. Aerial gunnery range.

Crew. NSI/CCUI or AOUI.

233. CORE SKILL ADVANCED PHASE

1. Purpose. To achieve core skill advanced certification.

2. General. Upon completion of the Advanced Night Systems Qualification (ANSQ) stage the aircrew will be LLL complete. Completion of this stage meets the requirements of NSQ (LLL).

3. Ground Training. Ground training requirements are listed per stage and must be completed prior to beginning that stage of training. Academics are promulgated IAW the UH-1N T&R Manual and MAWTS-1 Course Catalog.

4. Advanced Night Systems Qualification (ANSQ)

a. Purpose. To develop proficiency in a confined area while using NVGs below .0022 lux.

b. General

(1) CCUI and AOUI shall be NSQ (HLL).

(2) AOUI requirement: ANSQ-311, ANSQ-312, and ANSQ-313.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. Review the MAWTS-1 Course Catalog NVD Manual.

e. Flight Training. (3 Sorties, 4.5 Hours).

ANSQ-311 1.5 1 UH-1N A NS

Goal. Develop proficiency in CALs while using NVDs during LLL conditions.

Requirement

(1) Brief/discuss comfort levels, NVG map preparation and aircrew coordination.

(2) Conduct low work and navigation skills while using NVDs during LLL.

Performance Standards. Display proficiency during confined area operations and HIE approaches while using NVDs under LLL conditions.

Prerequisite. TAC-261.

Ordnance. N/A.

External Syllabus Support. N/A.

Crew. NSI/CCUI or AOUI.

| | | |
|---|------------|-------------------------|
| <u>ANSQ-312</u> | <u>1.5</u> | <u>C 2 UH-1N A N NS</u> |
| <u>Goal.</u> Introduce TERF and navigational aircrew coordination on NVDS during LLL. | | |
| <u>Requirement.</u> Aircrew will develop proficiency in the TERF environment in low level, contour and NOE flight. | | |
| <u>Performance Standards.</u> Display proficiency in all aspects of CAL and TERF navigation under LLL conditions. | | |
| <u>Prerequisite.</u> ANSQ-311. | | |
| <u>Ordinance.</u> N/A. | | |
| <u>External Syllabus Support.</u> N/A. | | |
| <u>Crew.</u> NSI/CCUI or AOUI. | | |
| <u>ANSQ-313</u> | <u>1.5</u> | <u>C,R 2 UH-1N A NS</u> |
| <u>Goal.</u> Introduce night section tactical helicopter operations using NVGs under LLL. | | |
| <u>Requirement.</u> Conduct a tactical assault support mission in a low to medium threat environment. Aircrew will refine aircrew coordination skills and lookout doctrine. | | |
| <u>Performance Standards.</u> Display ability to conduct a tactical assault support mission in a low to medium threat environment under LLL conditions. | | |
| <u>Prerequisite.</u> ANSQ-312. | | |
| <u>Ordinance.</u> N/A. | | |
| <u>External Syllabus Support.</u> One or more assault helicopters. | | |
| <u>Crew.</u> NSI/CCUI or AOUI. | | |

5. Specific Weapons Delivery (SWD)

a. Purpose. To develop techniques and profiles in conducting SWD gunnery under LLL conditions.

b. General

(1) Flights in this stage will be flown to expand the capabilities of the UH-1N CC and aerial gunner. Review the MAWTS-1 Academic Support Package Lectures and Aerial Gunnery Manual.

(2) AOUI requirement: SWD-315, SWD-316, and SWD-317.

c. Crew Requirement. As listed at the end of each event.

d. Flight Training. (3 Sorties, 4.5 Hours).

| | | |
|----------------|------------|-------------------------|
| <u>SWD-315</u> | <u>1.5</u> | <u>C,R 2 UH-1N A NS</u> |
|----------------|------------|-------------------------|

Goal. Introduce SWD GAU-16 gunnery under LLL conditions.

Requirement

(1) Brief/discuss NVD ordnance delivery in low light conditions, muzzle flash, rocket slag, weapons malfunction/stoppage and aircrew coordination.

(2) Emphasis on crew served weapons employment, weapons conditions, malfunctions, weapons preflight and arming/dearming.

Performance Standards. Demonstrate detailed knowledge of nomenclature, cycle of operation, BCWD and ability to safely and effectively employ the GAU-16 while using NVDS under LLL conditions.

Prerequisite. SWD-243.

Ordnance. 300 rds .50 Cal GAU-16.

External Syllabus Support. Aerial gunnery range.

Crew. NSI/CCUI or AOUI.

SWD-316

1.5 C,R 2 UH-1N A NS

Goal. Introduce SWD GAU-17 gunnery under LLL conditions.

Requirement

(1) Brief/discuss NVD ordnance delivery in low light conditions, muzzle flash, rocket slag, weapons malfunction/stoppage and aircrew coordination.

(2) Emphasis on crew served weapons employment, weapons conditions, malfunctions, weapons preflight and arming/dearming.

Performance Standards. Demonstrate detailed knowledge of nomenclature, cycle of operation, BCWD and ability to safely and effectively employ the GAU-17 while using NVDS under LLL conditions.

Prerequisite. SWD-244.

Ordnance. 1500 rds 7.62 mm GAU-17.

External Syllabus Support. Aerial gunnery range.

Crew. NSI/CCUI or AOUI.

SWD-317

1.5 C,R 2 UH-1N A NS

Goal. Introduce SWD M-240 gunnery under low LLL conditions.

Requirement

(1) Brief/discuss NVD ordnance delivery in low light conditions, muzzle flash, rocket slag, weapons malfunction/stoppage and aircrew coordination.

(2) Emphasis on aircrew coordination, crew served weapons employment, weapons conditions, malfunctions, weapons preflight and arming/dearming.

Performance Standards. Demonstrate detailed knowledge of nomenclature, cycle of operation, BCWD and ability to safely and effectively employ the M-240 while using NVDs under LLL conditions.

Prerequisite. SWD-245.

Ordinance. 400 rds 7.62 mm M-240.

External Syllabus Support. Aerial gunnery range.

Crew. NSI/CCUI or AOUI.

6. Tactics (TAC)

a. Purpose. To develop aircrew coordination for night tactical missions.

b. General

(1) The CCUI/SWDUI will refine crew responsibilities during night tactical missions.

(2) AOUI requirements: TAC-320, TAC-321.

c. Ground/Academic Training. Review UH-1N Tactical Manual and MAWTS-1 Course Catalog.

d. Crew Requirement. As listed at the end of each event.

e. Flight Training. (2 Sorties, 3.0 Hours).

TAC-320 1.5 C 1 UH-1N A NS

Goal. Refine aircrew coordination during a night tactical mission in a medium/high threat environment. Develop aircrew coordination during night MEDEVAC, RECON inserts, TRAP, or Raids under MCCRES or WTI standards.

Requirement

(1) Brief/discuss aircrew coordination, comfort levels, situational awareness, and terrain suitability/obstacle/clearance.

(2) Conduct a tactical mission using escort and assault aircraft. Introduce helicopter maneuvers, formations, gunner techniques, and CC responsibilities per current tactical doctrine.

Performance Standards. Display ability to perform aircrew responsibilities in a tactical environment.

Prerequisite. TAC-261.

Ordinance. 1500 rds GAU-17 or 300 rds GAU-16 or 400 rds M-240.

External Syllabus Support. Escort aircraft optional, aerial gunnery range.

Crew. NSI/CCUI or AOUI.

TAC-321

1.5 C,R 2 UH-1N A NS

Goal. Refine aircrew coordination during a night tactical mission in a medium/high threat environment.

Requirement

(1) Brief/discuss aircrew coordination, comfort levels, situational awareness, and terrain suitability/obstacle/clearance.

(2) Conduct a night tactical mission demonstrating SWD using NVDs. Introduce helicopter maneuvers, formations, gunner techniques, and CC responsibilities.

Performance Standards. Display ability to perform aircrew responsibilities in a tactical environment.

Prerequisite. TAC-320.

Ordinance. 1500 rds GAU-17 or 300 rds GAU-16 or 400 rds M-240.

External Syllabus Support. Escort aircraft optional, aerial gunnery range.

Crew. NSI/CCUI or AOUI.

7. Escort (ESC)

a. Purpose. To develop proficiency in prescribed heliborne or surface escort formations and maneuvers per current tactical doctrine.

b. General. The CCUI/AOUI will develop a working knowledge of escort formations, maneuvers, and techniques associated with heliborne operations.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training. Review the UH-1N Tactical Manual section on escort procedures and MAWTS-1 Course Catalog.

e. Flight Training. (1 Sortie, 1.5 Hours).

ESC-322

1.5 C,R 2 OR MORE ACFT A NS

Goal. Introduce helicopter escort procedures.

Requirement

(1) Brief/discuss escort responsibilities to include sectors of fire and transports sectors of fire.

(2) Review escort principles, formations, techniques and responsibilities per tactical doctrine for helicopter and surface vehicles.

(3) Demonstrate knowledge of procedures required to escort surface vehicles or other helicopters.

Performance Standards. Demonstrate the ability to safely and effectively employ crew served weapons while operating as escort aircraft.

Prerequisite. ESC-250.

Ordinance. 1500 rds 7.62 mm GAU-17, 300 rds .50 Cal GAU-16, or 400 rds 7.62 mm M-240.

External Syllabus Support. 1 or 2 assault aircraft/1 convoy, aerial gunnery range.

Crew. NSI/CCUI or AOUI.

234. CORE SKILL PLUS PHASE

1. Purpose. To certify the CCUI in large scale integrated mission events; events having unique mission taskings; events having a low probability of execution in combat, or high-risk relative events.

2. General

a. Completion of the RWDACM stage meets the requirements for the CCUI to be RWDACM qualified. At the discretion of the squadron commanding officer a letter assigning the CCUI as RWDACM qualified shall be placed in the NATOPS jacket, APR and a tracking code of QUAL-618 shall be logged.

b. Completion of the FWDACM stage meets the requirements for the CCUI to be FWDACM qualified. At the discretion of the squadron commanding officer a letter assigning the CCUI as FWDACM qualified shall be placed in the NATOPS jacket, APR and a tracking code of QUAL-619 shall be logged.

c. Completion of CQ-430 meets the requirement for the CCUI to be unaided CQ qualified. At the discretion of the squadron commanding officer a letter assigning the CCUI as unaided CQ qualified shall be placed in the NATOPS jacket, APR and a tracking code of QUAL-617 shall be logged.

3. Helicopter Insertion/Extraction (HIE)

a. Purpose. To develop the ability to perform HIE operations.

b. General. Review MAWTS-1 Academic Support Package Lectures. Prior to conducting HIE a face-to-face brief with the Fastrope/Rappel/Spie/Jump Master is required.

c. Crew Requirement. As listed at the end of each event. If passengers are embarked, aircrew must be NSQ.

d. Flight Training. (6 Sorties, 6.0 Hours).

HIE-400 1.0 C,R 1 UH-1N A (N)(NS)

Goal. Introduce techniques for paradrop operations.

Requirement. Brief/discuss aircraft rigging, insertion techniques, aircrew coordination, and emergencies.

Performance Standards. Display proper crew coordination and ability to assist in paradrop operations.

Prerequisite. CAL-223. Initial flight will be flown under day conditions.

Ordinance. N/A.

External Syllabus Support. Jump Master.

Crew. CCI (NSI)/CCUI or AOUI.

HIE-401

1.0 C,R 1 UH-1N A (N)(NS)

Goal. Introduce techniques for water insertions.

Requirement. Brief/discuss aircraft rigging, insertion techniques, aircrew coordination, and emergencies.

Performance Standards. Display proper crew coordination and ability to assist in water insertion operations.

Prerequisite. CAL-223.

Ordinance. N/A.

External Syllabus Support. HRST Master.

Crew. CCI (NSI)/CCUI or AOUI.

HIE-402

1.0 C,R 1 UH-1N A

Goal. Introduce techniques for insertion/extraction using the Special Personnel Insertion/Extraction (SPIE) rig and Jacob's Ladder.

Requirement. Brief/discuss aircraft rigging, insertion/extraction techniques, aircrew coordination, and emergencies.

Performance Standards. Display proper crew coordination and ability to assist in SPIE or Jacob's Ladder operations.

Prerequisite. CAL-223.

Ordinance. N/A.

External Syllabus Support. HRST Master.

Crew. CCI/CCUI or AOUI.

HIE-403

1.0 C 1 UH-1N A

Goal. Introduce techniques for insertion using fastrope.

Requirement. Brief/discuss aircraft rigging, insertion techniques, aircrew coordination, and emergencies.

Performance Standards. Display proper crew coordination and ability to assist in fastrope operations.

Prerequisite. CAL-223.

Ordinance. N/A.

External Syllabus Support. HRST Master.

Crew. CCI/CCUI or AOUI.

HIE-404

1.0 C 1 UH-1N A

Goal. Introduce techniques for insertion using rappel.

Requirement. Brief/discuss aircraft rigging, insertion techniques, aircrew coordination, and emergencies.

Performance Standards. Display proper crew coordination and ability to assist in rappel operations.

Prerequisite. CAL-223.

Ordinance. N/A.

External Syllabus Support. HRST Master.

Crew. CCI/CCUI or AOUI.

HIE-405

1.0 C 1 UH-1N A

Goal. Introduce techniques for emergency rescue hoist and external load procedures.

Requirement

(1) Brief and discuss engine failures, tail rotor emergencies, inadvertent IMC, settling with power, aircraft rigging, hook capabilities, hoist capabilities, aircrew coordination, HST procedures, ground crew brief, emergencies, and load jettison.

(2) Demonstrate/introduce proper techniques for external loads and hoist pickup.

(3) Complete three iterations of hoist operations (extract) or three iterations of hook procedures (pick-up, transit, delivery).

Performance Standards. Conduct flight and hook/hoist procedures IAW the UH-1N NATOPS Manual, UH-1N TACMAN, HIE Manual, and local directives.

Prerequisite. EXT-175.

Ordinance. N/A.

External Syllabus Support. Appropriate external weight.

Crew. CCI/CCUI or AOUI.

HIE-406 1.0 C 1 UH-1N A NS

Goal. Introduce techniques for insertion with fastrope or rappel using NVDs.

Requirement. Brief/discuss aircraft rigging, insertion techniques, aircrew coordination, and emergencies.

Performance Standards. Display proper crew coordination and ability to assist in fastrope or rappel operations while using NVDs.

Prerequisite. HIE-403 or HIE-404. Day flight will be flown before flying applicable night flight.

Ordinance. N/A.

External Syllabus Support. HRST Master.

Crew. NSI/CCUI or AOUI.

4. Rotary Wing Defensive Air Combat Maneuvering (RWDACM)

a. Purpose. To develop aircrew responsibility, coordination and situational awareness required during defensive maneuvering against RW aircraft.

b. General

(1) The CCUI and AOUI will develop crew responsibilities in assisting the pilots in accomplishing defensive maneuvers. Once complete with the stage and RQD-618 the CC/AO may be qualified in writing RWDACM by the squadron commander.

(2) AOUI requirements: Same as CCUI.

(3) CCUI and AOUI must complete RQD-618 to be RWDACM Qualified.

c. Crew Requirement. As listed at the end of each event.

d. Ground Training. Review applicable Tactical Manual, MAWTS-1 Academic Support Package lectures, and DACM Manual.

e. Flight Training. (3 Sorties, 3.5 Hours).

DACM-410 1.5 C,R 1 UH-1N A

Goal. Introduce air-to-air gunnery (AAG).

Requirement. Introduce AAG using shadow gunnery. Towed banner, dart, or Moving Land Target (MLT) may be used if available.

Performance Standards. Demonstrate detailed knowledge of nomenclature, cycle of operation, BCWD and ability to safely and effectively employ crew served weapons.

Prerequisite. Any one of the following; SWD-240, 241, or 242.

Ordnance. 1500 rds 7.62 mm GAU-17, 300 rds .50 Cal GAU-16, or 400 rds 7.62 mm M-240.

External Syllabus Support. MLT range, banner, or dart.

Crew. AGI/CCUI or AOUI.

DACM-411

1.0 C,R 1 UH-1N A

Goal. Introduce CC responsibilities during 1 v 1 RWDACM maneuvers.

Requirement

(1) Introduce basic defensive maneuvers, lookout procedures and identification of aircraft, missiles and AAA threats.

(2) Brief/discuss aircrew coordination, situational awareness and the use of crew served weapons against known threats.

Performance Standards. CCUI or AOUI will conduct flight per Tactical Manual, MAWTS-1 Assault Support Package, and DACM Manual.

Prerequisite. CAL-223.

Ordnance. N/A.

External Syllabus Support. One adversary helicopter, dissimilar if available.

Crew. DACMI/CCUI or AOUI.

DACM-412

1.0 C,R 2 UH-1N A

Goal. Introduce CC responsibilities during 2 v 1 RWDACM maneuvers.

Requirement

(1) Introduce basic defensive maneuvers, lookout procedures and identification of aircraft, missiles and AAA threats.

(2) Brief/discuss aircrew coordination, situational awareness and the use of crew served weapons against known threats.

Performance Standards. CCUI or AOUI will conduct flight per Tactical Manual, MAWTS-1 Assault Support Package, and DACM manual.

Prerequisites. DACM-411.

Ordnance. N/A.

External Syllabus Support. One adversary helicopter, dissimilar if available.

Crew. DACMI/CCUI or AOUI.

5. Fixed Wing Defensive Air Combat Maneuvers (FWDACM)

a. Purpose. To develop the aircrew coordination and situational awareness required during Defensive Maneuvers (DM) against FW threats.

b. General

(1) The CCUI/AOUI will develop crew responsibilities in assisting the pilots in accomplishing defensive maneuvers. Completion of this stage meets the requirements for designation as DACM Qualified. A qualification letter shall be placed in the NATOPS with a copy in the APR and a flight logbook entry.

(2) AOUI requirements: Same as CCUI.

(3) Upon completion of this stage of training, CCUI and AOUI will be qualified in all aspects of DACM.

c. Crew Requirements. As listed at the end of each event.

d. Ground Training. Review applicable MAWTS-1 Academic Support Package lectures and DACM Manual.

e. Flight Training. (3 Sorties, 3.0 Hours).

DACM-414 1.0 C,R 1 UH-1N A

Goal. Introduce CC responsibilities during 1 v 1 FWDACM.

Requirement

(1) Review lookout procedures and identification of aircraft, missiles and AAA threat.

(2) Introduce section DM against airborne FW threats.

(3) Brief/discuss aircrew coordination, situational awareness and crew served weapons against known threats.

Performance Standards. CCUI or AOUI will conduct flight per Tactical Manual, MAWTS-1 ASP, and DACM manual.

Prerequisite. DACM-412.

Ordinance. N/A.

External Syllabus Support. One adversary FW aircraft.

Crew. DACMI/CCUI or AOUI.

DACM-415 1.0 C,R 2 UH-1N A

Goal. Introduce CC responsibilities during 2 v 1 FWDACM.

Requirement

(1) Review lookout procedures and identification of aircraft, missiles and AAA threat.

(2) Introduce section DM against airborne FW threats.

(3) Brief/discuss aircrew coordination, situational awareness and crew served weapons against known threats.

Performance Standards. CCUI or AOUI will conduct flight per Tactical Manual, MAWTS-1 ASP, and DACM Manual.

Prerequisite. DACM-414.

Ordinance. N/A.

External Syllabus Support. One FW adversary.

Crew. DACMI/CCUI or AOUI.

DACM-416

1.0 C,R 2 UH-1N A

Goal. Introduce CC responsibilities during 2 Escort v 2 FWDACM.

Requirement

(1) Review helicopter escort procedures, lookout procedures and identification of aircraft, missiles and AAA threat.

(2) Introduce section DM against airborne FW threats while supporting assault package.

(3) Brief/discuss aircrew coordination, situational awareness and crew served weapons against known threats.

Performance Standards. CCUI or AOUI will conduct flight IAW Tactical Manual, MAWTS-1 ASP, and DACM manual.

Prerequisite. DACM-415.

Ordinance. N/A.

External Syllabus Support. Two FW adversary and one assault aircraft (optional).

Crew. DACMI/CCUI or AOUI.

6. Nuclear, Biological, and Chemical Warfare (NBC)

a. Purpose. To develop proficiency with the AR-5 protective assembly during normal and tactical flight operations.

b. General

(1) For the safe execution of initial NBC flights, 1 pilot and 1 aircrewman shall remain unmasked. On subsequent flights, all aircrew may remain masked.

(2) AOUI requirement: NBC-420.

c. Crew Requirement. As listed at the end of each event.

d. Ground/Academic Training

(1) Discuss and review NBC information contained in the appropriate Tactical Manual.

(2) Discuss hookup and operating procedures in the aircraft.

(3) Brief and discuss egress drills with full NBC protective equipment. Simulate both over-land and over-water emergencies.

e. Flight Training. (1 Sortie, 1.5 Hours).NBC-4201.0C,R 1 UH-1N A

Goal. Conduct normal and tactical flight operations in a NBC environment.

Requirement. Conduct low work, pattern work, CALs, and autorotations. The CCUI and AOUI shall wear the protective mask for the duration of the flight.

Performance Standards. Demonstrate the ability to perform aircrew responsibilities in the NBC environment.

Prerequisite. CAL-223.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

7. Carrier Qualification (CQ)

a. Purpose. To introduce and develop the aircrew coordination required for flight operations from a carrier deck or air capable ship day and night.

b. General

(1) The CCUI/AG will become familiar with those procedures required for actual shipboard operations. Refer to LHA/LHD NATOPS and NWP-42 for carrier and air capable ship operations.

(2) Minimum of 5 landings for each CQ.

c. Ground/Academic Training. Review required equipment for shipboard/over-water operations.

d. Crew Requirement. As listed at the end of each event.

e. Flight Training. (5 Sorties, 5.0 Hours).

CQ-4311.0C,R 1 UH-1N A

Goal. Introduce day FCLPs.

Requirement. Introduce day FCLP patterns, approaches, and landings. Brief and discuss flight deck procedures, LSE signals, emergency/ditching procedures, and raft usage.

Performance Standards. Demonstrate the ability/knowledge to perform shipboard flight operations to include LSE hand and arm signals.

Prerequisite. CSIX-181.

Ordinance. N/A.

External Syllabus Support. FCLP pad.

Crew. CCI/CCUI or AOUI.

CQ-432

1.0 C,R 1 UH-1N A N NS

Goal. Introduce night and NVD FCLPs.

Requirement. Introduce night, unaided and aided FCLP patterns and landings. Brief and discuss flight deck procedures, LSE signals, emergency/ditching procedures, and raft usage.

Performance Standards. Demonstrate the ability/knowledge to perform unaided and aided shipboard flight operations to include LSE hand and arm signals.

Prerequisite. CQ-431.

External Syllabus Support. Lit/NVD compatible FCLP landing pad.

Crew. NSI/CCUI or AOUI.

CQ-433

1.0 C,R 1 UH-1N A

Goal. Conduct day CQ flight.

Requirement. Day qualification.

Performance Standards. Demonstrate the ability/knowledge to perform shipboard flight operations to include LSE hand and arm signals.

Prerequisite. CQ-431.

Ordinance. N/A.

External Syllabus Support. Landing platform afloat.

Crew. CCI/CCUI or AOUI.

CQ-434

1.0 C,R 1 UH-1N A NS

Goal. Conduct NVG CQ flight.

Requirement

(1) Introduce night shipboard operation procedures while using NVDs.

(2) NVD qualification.

Performance Standards. Demonstrate the ability/knowledge to perform aided shipboard flight operations to include LSE hand and arm signals.

Prerequisite. CQ-432, 433.

Ordinance. N/A.

External Syllabus Support. NVD compatible landing platform afloat.

Crew. NSI/CCUI or AOUI.

CQ-435

1.0 C,R 1 UH-1N A N

Goal. Night unaided CQ introduction.

Requirement

(1) Introduce night unaided shipboard operation procedures.

(2) Night unaided shipboard qualification.

Performance Standards. Demonstrate the ability/knowledge to perform unaided shipboard flight operations to include the LSE hand and arm signals.

Prerequisite. CQ-432.

Ordinance. N/A.

External Syllabus Support. Lit landing platform afloat.

Crew. CCI/CCUI or AOUI.

250. INSTRUCTOR TRAINING

1. Purpose. To develop standardized FRS instructor CCs with the ability to teach flight skills requisite to qualification as a Core Skill Introduction CC.

2. General. Upon completion of the Crew Chief Instructor (CCI) stage, the IUT may be designated a CCI by the FRS squadron commanding officer. The CCIUT must be a TERFI, AGI, and NSQ (LLL) prior to beginning CCIUT training.

3. CCI

a. Ground Training. CCIUT stage lecture.

b. Flight Training. (2 Sorties, 3.0 Hours).

CCI-500

1.5 E 1 UH-1N A

Goal. CCI will demonstrate techniques of instructing/evaluating normal ground procedures, passenger, and inflight procedures for the Core Skill Introduction phase of training.

Requirement

(1) Demonstrate standard NATOPS procedures to include hand and arm signals.

(2) Emphasize aircrew coordination and comfort level.

Performance Standards. Demonstrate instructional techniques to instruct CCUIs in the Core Skill Introduction phase.

Prerequisite. TAC-261.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

CCI-504

1.5

E 1 UH-1N A

Goal. Demonstrate techniques of instructing/evaluating external weight and hoist operations and procedures.

Requirement

(1) Brief/discuss aircrew coordination, lost comm, ICS terminology, lookout doctrine, emergency procedures, load oscillation, and load release.

(2) Instruct at least 2 hookups, flight, and release operations.

(3) Instruct procedures, signals, and communications for hoist procedures.

Performance Standards. Demonstrate instructional techniques to CCUIs during external weight and hoisting procedures.

Prerequisite. CCI-500.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. CCI/CCUI or AOUI.

251. REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS (RQD)

1. NATOPS Evaluation Stage

a. Purpose. To conduct NATOPS evaluation.

b. General. Flights flown in this stage are evaluation flights. CRP is not awarded for these flights. CRP credit may be realized by logging the junior training code(s) listed in the flight description on the NAVFLIRS along with the RQD code.

c. Ground Training. Per applicable directives.

- d. Crew Requirement. NATOPS Evaluator or Instructor and CC or AO.
- e. Flight Training. (1 Sortie, 1.5 Hours).

RQD-601 1.5 C,R E 1 UH-1N A

Goal. Conduct the annual NATOPS evaluation.

Requirement. Conduct a CC NATOPS evaluation per criteria in the UH-1N NATOPS Manual.

Performance Standards. IAW NATOPS.

Prerequisite. CSIX-181.

Ordinance. N/A.

External Syllabus Support. N/A.

Crew. ANI/CCUI or AOUI.

2. Qualification Stage

- a. Purpose. To track qualifications.
- b. General

(1) Codes in this stage are qualification codes. CRP credit may be realized by logging the junior training code(s) listed in the flight description on the NAVFLIRS along with the RQD code. This code shall be logged on initial qualification flight only.

(2) DACM-618 will be flown as an actual flight and logged with an ATF.

- c. Ground Training. Per applicable directives.
- d. Crew Requirement. Per applicable training stage.
- e. Flight Training. (1 Sortie, 1.0 Hour)

QUAL-610 C,R E UH-1N A

Goal. Tracking code for TERF qualification.

Requirement. Successfully complete the requirements of CAL-223. Code shall be logged in conjunction with CAL-223.

Prerequisite. See CAL-223.

QUAL-611 C,R E UH-1N A

Goal. Tracking code for Night Systems (HLL) qualification.

Requirement. Successfully complete the requirements of TAC-261. This code shall be logged in conjunction with TAC-261.

Prerequisite. See TAC-261.

QUAL-612C,R E UH-1N A

Goal. Tracking code for Advanced Night Systems (LLL) qualification.

Requirement. Successfully complete the requirements of ANSQ-312. This code shall be logged in conjunction with ANSQ-312.

Prerequisite. See ANSQ-312.

QUAL-615C,R E UH-1N A

Goal. Tracking code for Day Carrier qualification.

Requirement. Successfully complete the requirements of CQ-433. This code shall be logged in conjunction with CQ-433.

Prerequisite. See CQ-433.

QUAL-616C,R E UH-1N A

Goal. Tracking code for NVD Carrier qualification (NVDCQ).

Requirement. Successfully complete the requirements of CQ-434. This code shall be logged in conjunction with CQ-434.

Prerequisite. See CQ-434.

QUAL-617C,R E UH-1N A

Goal. Tracking code for night unaided Carrier Qualification (Night CQ).

Requirement. Successfully complete the requirements of CQ-435. This code shall be logged in conjunction with CQ-435.

Prerequisite. See CQ-435.

QUAL-618C,R E UH-1N A

Goal. Tracking code for RWDACM qualification.

Requirement. Completion of the RWDACM stage meets the requirements for the PUI to be RWDACM qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as RWDACM qualified shall be placed in the NATOPS jacket, APR and a tracking code of QUAL-618 shall be logged.

Prerequisite. DACM-412.

QUAL-619C,R E UH-1N A

Goal. Tracking code for FWDACM qualification.

Requirement. Successfully complete the requirements of DACM-416. This code shall be logged in conjunction with DACM-416.

Prerequisite. See DACM-416.

3. Aerial Gunner Qualification Stage

a. Purpose. To achieve qualification as an aerial gunner.

b. General

(1) Completion of this stage qualifies the CCUI/AOUI for designation as an aerial gunner on the respective weapon. Appropriate documentation (ATFs with rounds-count) will be completed for each weapon prior to designation as aerial gunner. A designation qualification letter shall be placed in the NATOPS Jacket with a copy in the APR and flight logbook entry.

(2) AOUI requirement: RQD-620, 621, and 622.

c. Ground Training. Review MAWTS-1 Academic Support Package lectures and Aerial Gunnery Manual. Written examinations shall be administered prior to each individual weapon evaluation flight.

d. Crew Requirement. NSI and CCUI or AOUI.

e. Flight Training. (3 Sorties, 4.5 Hours).

QUAL-620 1.5 C,R E 2 UH-1N A NS

Goal. GAU-16 aerial gunner qualification.

Requirement

(1) Discuss/brief weapon troubleshooting and malfunctions.

(2) Lasers should be used if available.

(3) Review BCWD principles.

Performance Standards. Demonstrate detailed knowledge in all aspects of BCWD, nomenclature, weapon checklist and usage, and troubleshooting procedures. Demonstrate proficiency in safe and effective employment of the GAU-16 while using NVDs.

Prerequisite. NSQ (LLL), ESC-322, and SWD-315.

Ordinance. 300 rds 7.62mm GAU-16.

External Syllabus Support. Aerial gunnery range.

QUAL-621 1.5 C,R E 2 UH-1N A NS

Goal. GAU-17 aerial gunner qualification.

Requirement

(1) Discuss/brief weapon troubleshooting and malfunctions.

(2) Lasers should be utilized if available.

(3) Review BCWD principles.

Performance Standards. Demonstrate detailed knowledge in all aspects of BCWD, nomenclature, weapon checklist and usage, and troubleshooting procedures. Demonstrate proficiency in safe and effective employment of the GAU-17 while using NVDs.

Prerequisite. NSQ (LLL), ESC-322, and SWD-316.

Ordinance. 1500 rds 7.62mm GAU-17.

External Syllabus Support. Aerial gunnery range.

QUAL-622

1.5 C,R E 2 UH-1N A NS

Goal. M-240 aerial gunner qualification.

Requirement

(1) Discuss/brief weapon troubleshooting and malfunctions.

(2) Lasers should be used if available.

(3) Review BCWD principles.

Performance Standards. Demonstrate detailed knowledge in all aspects of BCWD, nomenclature, weapon checklist and usage, and troubleshooting procedures. Demonstrate proficiency in safe and effective employment of the M-240 while using NVDs.

Prerequisite. NSQ (LLL), ESC-322, and SWD-317.

Ordinance. 400 rds 7.62mm M-240.

External Syllabus Support. Aerial gunnery range.

4. Designation Stage

a. Purpose. To track designations.

b. General. Codes in this stage are designation codes. CRP credit may be realized by logging the junior training code(s) listed in the flight description on the NAVFLIRS along with the RQD code. This code shall be logged on initial designation flights only.

c. Ground Training. Per applicable directives.

d. Crew Requirement. Per applicable training stage.

e. Flight Training. Per applicable training stage.

IDSG-680

C,R E UH-1N A

Goal. Tracking code for CCI designation.

Requirement. Successfully complete the requirements of CCI-504. Code shall be logged in conjunction CCI-504.

Performance Standards. See CCI-504.

Prerequisite. See CCI-504.

Ordnance. N/A.

External Syllabus Support. See CCI-504.

IDSG-681

C,R E UH-1N A

Goal. Tracking code for TERFI designation.

Requirement. Successfully complete requirements per the MAWTS-1 Course Catalog. Code shall be logged in conjunction with designation flight.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. See MAWTS-1 Course Catalog.

Ordnance. N/A.

External Syllabus Support. See MAWTS-1 Course Catalog.

IDSG-682

C,R E UH-1N A

Goal. Tracking code for AGI GAU-16 designation.

Requirement. Successfully complete requirements per MAWTS-1 Course Catalog. Code shall be logged in conjunction with designation flight.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. See MAWTS-1 Course Catalog

Ordnance. N/A.

External Syllabus Support. See MAWTS-1 Course Catalog.

IDSG-683

C,R E UH-1N A

Goal. Tracking code for AGI GAU-17 designation.

Requirement. Successfully complete requirements per MAWTS-1 Course Catalog. Code shall be logged in conjunction with designation flight.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. See MAWTS-1 Course Catalog.

Ordnance. N/A.

External Syllabus Support. See MAWTS-1 Course Catalog.

IDSG-684

C,R E UH-1N A

Goal. Tracking code for AGI M-240 designation.

Requirement. Successfully complete requirements per MAWTS-1 Course Catalog. Code shall be logged in conjunction with designation flight.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. See MAWTS-1 Course Catalog.

Ordinance. N/A.

External Syllabus Support. See MAWTS-1 Course Catalog.

IDSG-688

C,R E UH-1N A

Goal. Tracking code for DACMI designation.

Requirement. Successfully complete requirements per MAWTS-1 Course Catalog. Code shall be logged in conjunction with designation flight.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. See MAWTS-1 Course Catalog.

Ordinance. N/A.

External Syllabus Support. See MAWTS-1 Course Catalog.

IDSG-694

C,R E UH-1N A

Goal. Tracking code for NSFII designation.

Requirement. Successfully complete requirements per MAWTS-1 Course Catalog. Code shall be logged in conjunction with designation flight.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. See MAWTS-1 Course Catalog.

Ordinance. N/A.

External Syllabus Support. See MAWTS-1 Course Catalog.

IDSG-695

C,R E UH-1N A

Goal. Tracking code for NSSI designation.

Requirement. Successfully complete requirements per MAWTS-1 Course Catalog. Code shall be logged in conjunction with designation flight.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. See MAWTS-1 Course Catalog.

Ordinance. N/A.

External Syllabus Support. See MAWTS-1 Course Catalog.

IDSG-696C,R E UH-1N A

Goal. Tracking code for NSI designation.

Requirement. Successfully complete the requirements per MAWTS-1 Course Catalog. Code shall be logged in conjunction with designation flight.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. See MAWTS-1 Course Catalog.

Ordinance. N/A.

External Syllabus Support. See MAWTS-1 Course Catalog.

IDSG-699C,R E UH-1N A

Goal. Tracking code for WTI designation.

Requirement. Successfully complete requirements per MAWTS-1 Course Catalog. Code shall be logged in conjunction with designation flight.

Performance Standards. See MAWTS-1 Course Catalog.

Prerequisite. See MAWTS-1 Course Catalog.

Ordinance. N/A.

External Syllabus Support. See MAWTS-1 Course Catalog.

260. ORDNANCE REQUIREMENTS. Annual ordnance requirements are developed on a "per crew" basis per OPNAVNOTE 8010.

Basic/Transition/Conversion

| ORDNANCE | 100 SERIES | 200 SERIES | 300 SERIES | 400 SERIES | 500 SERIES | 600 SERIES | REFRESH | ANNUAL * |
|----------|---------------|---------------|---------------|---------------|---------------|---------------|---------|-------------|
| 7.62mm | 3,800 | 9,500 | 7,600 | 1,900 | 7,600 | 1,900 | 17,100 | 13,300 |
| .50 Cal | 600 | 1,500 | 1,200 | 300 | 1200 | 300 | 2,700 | 2,100 |

*Annual ordnance requirements maintain an aircrew member at proficiency.

NOTE: The 200, 300 and 600 series expenditures are firm. The CCUI/AOUI must shoot all of these rounds. For the 100 and 400 series flights, any weapon may be fired for flexibility. Ordnance requirements are computed firing 1500 rounds 7.62 mm or 300 rounds .50 Cal on these flights.

Core Skill Introduction Phase

| STAGE | FLT CODE | FLT HRS | REFLY INTERVAL | CRP | C | R | E | N | NS | A/C OR SIM | # A/C |
|-----------------|----------|---------|----------------|------|---|---|---|---|----|------------|-------|
| FAM | 101 | 1.5 | * | 3.0 | | | | | | A | 1 |
| FAM | 102 | 1.5 | * | 3.0 | X | X | | | | A | 1 |
| FAM | 112 | 1.5 | * | 3.0 | X | X | | N | | A | 1 |
| FAM | 115 | 1.5 | * | 4.0 | X | X | | | NS | A | 1 |
| FORM | 131 | 1.5 | * | 3.0 | X | X | | | | A | 2 |
| FORM | 132 | 1.5 | * | 4.0 | X | X | | | NS | A | 2 |
| TERF | 140 | 1.5 | * | 3.0 | | | | | | A | 1 |
| TERF | 141 | 1.5 | * | 4.0 | X | X | | | NS | A | 1 |
| NAV | 151 | 1.5 | * | 3.0 | | | | | | A | 1 |
| NAV | 152 | 1.5 | * | 4.0 | X | X | | | NS | A | 1 |
| SSWD | 160 | 0.0 | * | 2.0 | | | | | | S | |
| SWD | 161 | 1.5 | * | 4.0 | X | X | | | | A | 1 |
| CAL | 170 | 1.5 | * | 3.0 | | | | | | A | 1 |
| CAL | 171 | 1.5 | * | 3.0 | X | | | | | A | 1 |
| CAL | 172 | 1.5 | * | 4.0 | X | X | | N | NS | A | 1 |
| EXT | 175 | 1.5 | * | 3.0 | X | | | | | A | 1 |
| CSIX | 181 | 2.0 | * | 7.0 | X | X | X | | | A | 1 |
| Sub Total 100 | | 24.5 | | 60.0 | | | | | | | |
| Pre 100 | | 0.0 | | 0.0 | | | | | | | |
| 100 Level Total | | 24.5 | | 60.0 | | | | | | | |

Figure 2-2.--MOS 6174 Refly Interval, Combat Readiness Percentage.

Core Skill Basic Phase

| STAGE | CODE | FLT HRS | REFLY INTERVAL | CRP VALUE | C | R | E | N | NS | A/C OR SIM | # A/C |
|--------------------|------|------------|-------------------|--------------|---|---|---|-----|------|---------------|----------|
| TERF | 210 | 1.5 | 180 | 1.0 | X | | | | | A | 1 |
| TERF | 211 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 2 |
| NS | 215 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 1 |
| CAL | 220 | 1.5 | 180 | 1.0 | X | | | | | A | 2 |
| CAL | 221 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 2 |
| CAL | 223 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 2 |
| SWD | 240 | 1.5 | 180 | 1.0 | X | | | | | A | 1 |
| SWD | 241 | 1.5 | 180 | 1.0 | X | | | | | A | 1 |
| SWD | 242 | 1.5 | 180 | 1.0 | X | | | | | A | 1 |
| SWD | 243 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 1 |
| SWD | 244 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 1 |
| SWD | 245 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 1 |
| ESC | 250 | 1.5 | 180 | 1.5 | X | | | (N) | (NS) | A | 2 |
| TAC | 261 | 1.5 | 180 | 1.5 | X | X | | | NS | A | 2 |
| Sub Total 200 | | 23.0 | | 15.0 | | | | | | | |
| Total 100 | | 24.5 | | 60.0 | | | | | | | |
| Total 100 & 200 | | 47.5 | | 75.0 | | | | | | | |

Figure 2-2.--MOS 6174 Refly Interval, Combat Readiness Percentage--Continued.

Core Skill Advanced Phase

| STAGE | CODE | FLT HRS | REFLY INTERVAL | CRP VALUE | C | R | E | N | NS | ACFT OR SIM | # A/C |
|-------------------------|------|------------|-------------------|--------------|---|---|---|---|----|-------------------|----------|
| ANSQ | 311 | 1.5 | 180 | 2.5 | | | | | NS | A | 1 |
| ANSQ | 312 | 1.5 | 180 | 2.5 | X | | | | NS | A | 2 |
| ANSQ | 313 | 1.5 | 180 | 2.5 | X | X | | | NS | A | 2 |
| SWD | 315 | 1.5 | 180 | 2.0 | X | X | | | NS | A | 2 |
| SWD | 316 | 1.5 | 180 | 2.0 | X | X | | | NS | A | 2 |
| SWD | 317 | 1.5 | 180 | 2.0 | X | X | | | NS | A | 2 |
| TAC | 320 | 1.5 | 180 | 2.0 | X | | | | NS | A | 1 |
| TAC | 321 | 1.5 | 180 | 2.5 | X | X | | | NS | A | 2 |
| ESC | 322 | 1.5 | 180 | 2.0 | X | X | | | NS | A | 2 |
| Sub Total 300 | | 15.5 | | 20.0 | | | | | | | |
| Total 100 & 200 | | 47.5 | | 75.0 | | | | | | | |
| Total 100, 200 & 300 | | 63.0 | | 95.0 | | | | | | | |

Figure 2-2.--MOS 6174 Refly Interval, Combat Readiness Percentage--Continued.

Core Skill Plus Phase

| STAGE | CODE | FLT HRS | REFLY INTERVAL | CRP VALUE | C | R | E | N | NS | A/C OR SIM | # A/C |
|-----------------------------|------|------------|-------------------|--------------|---|---|---|-----|------|---------------|----------|
| HIE | 400 | 1.0 | 365 | 0.2 | X | X | | (N) | (NS) | A | 1 |
| HIE | 401 | 1.0 | 365 | 0.2 | X | X | | (N) | (NS) | A | 1 |
| HIE | 402 | 1.0 | 365 | 0.2 | X | X | | | | A | 1 |
| HIE | 403 | 1.0 | 365 | 0.2 | X | | | | | A | 1 |
| HIE | 404 | 1.0 | 365 | 0.2 | X | | | | | A | 1 |
| HIE | 405 | 1.0 | 365 | 0.2 | X | | | | | A | 1 |
| HIE | 406 | 1.0 | 365 | 0.2 | X | | | | NS | A | 1 |
| DACM | 410 | 1.5 | 365 | 0.2 | X | X | | | | A | 1 |
| DACM | 411 | 1.0 | 365 | 0.2 | X | X | | | | A | 1 |
| DACM | 412 | 1.0 | 365 | 0.2 | X | X | | | | A | 2 |
| DACM | 414 | 1.0 | 365 | 0.2 | X | X | | | | A | 1 |
| DACM | 415 | 1.0 | 365 | 0.2 | X | X | | | | A | 2 |
| DACM | 416 | 1.0 | 365 | 0.4 | X | X | | | | A | 2 |
| NBC | 420 | 1.0 | 365 | 0.2 | X | X | | | | A | 1 |
| CQ | 431 | 1.0 | 365 | 0.4 | X | X | | | | A | 1 |
| CQ | 432 | 1.0 | 365 | 0.4 | X | X | | N | NS | A | 1 |
| CQ | 433 | 1.0 | 365 | 0.5 | X | X | | | | A | 1 |
| CQ | 434 | 1.0 | 365 | 0.5 | X | X | | | NS | A | 1 |
| CQ | 435 | 1.0 | 365 | 0.2 | X | X | | N | | A | 1 |
| Sub Total 400 | | 15.5 | | 5.0 | | | | | | | |
| Total 100, 200, & 300 | | 63.0 | | 95.0 | | | | | | | |
| Total 100, 200, 300, 400 | | 78.5 | | 100.0 | | | | | | | |

Instructor Training

| STAGE | CODE | FLT HRS | REFLY INTERVAL | CRP VALUE | C | R | E | N | NS | A/C OR SIM | # A/C |
|------------------------|------|------------|-------------------|--------------|---|---|---|---|----|---------------|----------|
| CCI | 500 | 1.5 | * | | | | X | | | A | 1 |
| CCI | 504 | 1.5 | * | | | | X | | | A | 1 |
| Sub Total 500 Level | | 3.0 | | | | | | | | | |

Figure 2-2.--MOS 6174 Refly Interval, Combat Readiness Percentage--Continued.

Requirements, Qualifications, and Designations

| STAGE | CODE | FLT HRS | REFLY INTERVAL | TRACK | C | R | E | N | NS | A/C OR SIM | # A/C | NOTES |
|-----------|------|------------|-------------------|-------|---|---|---|---|----|------------------|----------|--------------|
| RQD | 601 | 1.5 | 365 | | X | X | X | | | A | 1 | NATOPS CHECK |
| QUAL | 610 | | * | X | X | X | X | | | | | TERF QUAL |
| QUAL | 611 | | * | X | X | X | X | | | | | NSQ HLL |
| QUAL | 612 | | * | X | X | X | X | | | | | NSQ LLL |
| QUAL | 615 | | * | X | X | X | X | | | | | CQ DAY |
| QUAL | 616 | | * | X | X | X | X | | | | | NVDCQ |
| QUAL | 617 | | * | X | X | X | X | | | | | CQ UNAIDED |
| QUAL | 618 | | * | X | X | X | X | | | | | DACM (RW) |
| QUAL | 619 | | * | X | X | X | X | | | | | DACM |
| QUAL | 620 | 1.5 | * | | X | X | X | | X | A | 2 | GAU-16 QUAL |
| QUAL | 621 | 1.5 | * | | X | X | X | | X | A | 2 | GAU-17 QUAL |
| QUAL | 622 | 1.5 | * | | X | X | X | | X | A | 2 | M-240 QUAL |
| IDSG | 680 | | * | X | X | X | X | | | | | CCI |
| IDSG | 681 | | * | X | X | X | X | | | | | TERFI |
| IDSG | 682 | | * | X | X | X | X | | | | | AGI GAU-16 |
| IDSG | 683 | | * | X | X | X | X | | | | | AGI GAU-17 |
| IDSG | 684 | | * | X | X | X | X | | | | | AGI M-240 |
| IDSG | 688 | | * | X | X | X | X | | | | | DACMI |
| IDSG | 694 | | * | X | X | X | X | | | | | NSFI |
| IDSG | 695 | | * | X | X | X | X | | | | | NSSI |
| IDSG | 696 | | * | X | X | X | X | | | | | NSI |
| IDSG | 699 | | * | X | X | X | X | | | | | WTI |
| | | FLT HRS | | | | | | | | | | |
| Sub Total | | 7.0 | | | | | | | | | | |

Figure 2-2.--MOS 6174 Refly Interval, Combat Readiness Percentage--Continued.

Core Skill Introduction Phase

| STAGE | FLT CODE | FLT HRS | REFLY INTERVAL | CRP | C | R | E | N | NS | A/C OR SIM | # A/C |
|-----------------|----------|---------|----------------|------|---|---|---|---|----|------------|-------|
| FAM | 101 | 1.5 | * | 2.0 | | | | | | A | 1 |
| FAM | 115 | 1.5 | * | 2.0 | X | X | | | NS | A | 1 |
| FORM | 131 | 1.5 | * | 5.0 | X | X | | | | A | 2 |
| FORM | 132 | 1.5 | * | 5.0 | X | X | | | NS | A | 2 |
| TERF | 140 | 1.5 | * | 5.0 | | | | | | A | 1 |
| TERF | 141 | 1.5 | * | 5.0 | X | X | | | NS | A | 1 |
| NAV | 152 | 1.5 | * | 5.0 | X | X | | | NS | A | 1 |
| SSWD | 160 | N/A | * | 1.0 | | | | | | S | |
| SWD | 161 | 1.5 | * | 5.0 | X | X | | | | A | 1 |
| CAL | 171 | 1.5 | * | 5.0 | X | | | | | A | 1 |
| CAL | 172 | 1.5 | * | 5.0 | X | X | | N | NS | A | 1 |
| CSIX | 181 | 1.5 | * | 15.0 | X | X | X | | | A | 1 |
| Sub Total 100 | | 16.5 | | 60.0 | | | | | | | |
| Pre 100 | | 0.0 | | 0.0 | | | | | | | |
| 100 Level Total | | 16.5 | | 60.0 | | | | | | | |

Core Skill Basic Phase

| STAGE | CODE | FLT HRS | REFLY INTERVAL | CRP | C | R | E | N | NS | A/C OR SIM | # A/C |
|-----------------|------|---------|----------------|------|---|---|---|---|----|------------|-------|
| TERF | 210 | 1.5 | 180 | 1.0 | X | | | | | A | 1 |
| TERF | 211 | 1.5 | 180 | 1.5 | X | X | | | NS | A | 2 |
| NS | 215 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 1 |
| CAL | 220 | 1.5 | 180 | 1.5 | X | | | | | A | 2 |
| CAL | 221 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 2 |
| CAL | 223 | 1.5 | 180 | 1.5 | X | X | | | NS | A | 2 |
| SWD | 240 | 1.5 | 180 | 1.0 | X | | | | | A | 1 |
| SWD | 241 | 1.5 | 180 | 1.0 | X | | | | | A | 1 |
| SWD | 242 | 1.5 | 180 | 1.0 | X | | | | | A | 1 |
| SWD | 243 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 1 |
| SWD | 244 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 1 |
| SWD | 245 | 1.5 | 180 | 1.0 | X | X | | | NS | A | 1 |
| TAC | 261 | 1.5 | 180 | 1.5 | X | X | | | NS | A | 2 |
| Sub Total 200 | | 20.0 | | 15.0 | | | | | | | |
| Total 100 | | 16.5 | | 60.0 | | | | | | | |
| Total 100 & 200 | | 36.5 | | 75.0 | | | | | | | |

Figure 2-3.--AO Refly Interval, Combat Readiness Percentage.

Core Skill Advanced Phase

| STAGE | CODE | FLT HRS | REFLY INTERVAL | CRP VALUE | C | R | E | N | NS | A/C OR SIM | # A/C |
|----------------------|------|------------|-------------------|--------------|---|---|---|---|----|---------------|----------|
| ANSQ | 311 | 1.5 | 180 | 2.5 | | | | | NS | A | 1 |
| ANSQ | 312 | 1.5 | 180 | 2.5 | X | | | | NS | A | 2 |
| ANSQ | 313 | 1.5 | 180 | 2.5 | X | X | | | NS | A | 2 |
| SWD | 315 | 1.5 | 180 | 2.5 | X | X | | | NS | A | 2 |
| SWD | 316 | 1.5 | 180 | 2.5 | X | X | | | NS | A | 2 |
| SWD | 317 | 1.5 | 180 | 2.5 | X | X | | | NS | A | 2 |
| TAC | 320 | 1.5 | 180 | 2.5 | X | | | | NS | A | 1 |
| TAC | 321 | 1.5 | 180 | 2.5 | X | X | | | NS | A | 2 |
| Sub Total 300 | | 14.0 | | 20.0 | | | | | | | |
| Total 100 & 200 | | 36.5 | | 75.0 | | | | | | | |
| Total 100, 200 & 300 | | 50.5 | | 95.0 | | | | | | | |

Core Skill Plus Phase

| STAGE | CODE | FLT HRS | REFLY INTERVAL | CRP VALUE | C | R | E | N | NS | A/C OR SIM | # A/C |
|--------------------------|------|------------|-------------------|--------------|---|---|---|---|----|---------------|----------|
| DACM | 410 | 1.5 | 365 | 0.2 | X | X | | | | A | 1 |
| DACM | 411 | 1.0 | 365 | 0.2 | X | X | | | | A | 1 |
| RWDACM | 412 | 1.0 | 365 | 0.4 | X | X | | | | A | 2 |
| DACM | 414 | 1.0 | 365 | 0.4 | X | X | | | | A | 1 |
| DACM | 415 | 1.0 | 365 | 0.4 | X | X | | | | A | 2 |
| DACM | 416 | 1.0 | 365 | 1.0 | X | X | | | | A | 2 |
| NBC | 420 | 1.0 | 365 | 0.5 | X | X | | | | A | 1 |
| CQ | 431 | 1.0 | 365 | 0.4 | X | X | | | | A | 1 |
| CQ | 432 | 1.0 | 365 | 0.4 | X | X | | N | NS | A | 1 |
| CQ | 433 | 1.0 | 365 | 0.4 | X | X | | | | A | 1 |
| CQ | 434 | 1.0 | 365 | 0.5 | X | X | | | NS | A | 1 |
| CQ | 435 | 1.0 | 365 | 0.2 | X | X | | N | | A | 1 |
| Sub Total 400 | | 8.5 | | 5.0 | | | | | | | |
| Total 100, 200, & 300 | | 50.5 | | 95.0 | | | | | | | |
| Total 100, 200, 300, 400 | | 59.0 | | 100.0 | | | | | | | |

Figure 2-3.--AO Refly Interval, Combat Readiness Percentage--Continued.

Requirements, Qualifications, and Designations

| STAGE | CODE | FLT HRS | REFLY INTERVAL | TRACK | C | R | E | N | NS | A/C OR SIM | # A/C | NOTES |
|-----------|------|------------|-------------------|-------|---|---|---|---|----|------------------|----------|--------------|
| RQD | 601 | 1.5 | 365 | | X | X | X | | | A | 1 | NATOPS CHECK |
| QUAL | 610 | | * | X | X | X | X | | | | | TERF QUAL |
| QUAL | 611 | | * | X | X | X | X | | | | | NSQ HLL |
| QUAL | 612 | | * | X | X | X | X | | | | | NSQ LLL |
| QUAL | 615 | | * | X | X | X | X | | | | | CQ DAY |
| QUAL | 616 | | * | X | X | X | X | | | | | NVDCQ |
| QUAL | 617 | | * | X | X | X | X | | | | | CQ UNAIDED |
| QUAL | 618 | | * | X | X | X | X | | | | | DACM (RW) |
| QUAL | 619 | | * | X | X | X | X | | | | | DACM |
| QUAL | 620 | 1.5 | * | | X | X | X | | X | A | 2 | GAU-16 QUAL |
| QUAL | 621 | 1.5 | * | | X | X | X | | X | A | 2 | GAU-17 QUAL |
| QUAL | 622 | 1.5 | * | | X | X | X | | X | A | 2 | M-240 QUAL |
| IDSG | 682 | | * | X | X | X | X | | | | | AGI GAU-16 |
| IDSG | 683 | | * | X | X | X | X | | | | | AGI GAU-17 |
| IDSG | 684 | | * | X | X | X | X | | | | | AGI M-240 |
| | | FLT HRS | | | | | | | | | | |
| Sub Total | | 6.0 | | | | | | | | | | |

Figure 2-3.--AO Refly Interval, Combat Readiness Percentage--Continued.

MOS 6174 FLIGHT UPDATE CHAINING

| <u>STAGE</u> | <u>FLIGHT</u> | <u>FLIGHTS UPDATED</u> |
|--------------|---------------|---|
| TERF | 210 | |
| | 211 | 210 |
| NS | 215 | 211, 210 |
| CAL | 220 | |
| | 221 | 220 |
| | 223 | 220, 221 |
| SWD | 240 | |
| | 241 | |
| | 242 | |
| | 243 | 210, 211, 220, 221, 240 |
| | 244 | 210, 211, 220, 241 |
| | 245 | 210, 211, 220, 221, 242 |
| ESC | 250 | 210, 211, 220, 221, 223, 240, 241, 242, 243, 244, 245 |
| TAC | 261 | 210, 211, 220, 221, 223, 240, 241, 242, 243, 244, 245 |
| ANSQ | 311 | 220, 221 |
| | 312 | 210, 211, 220, 221, 223, 311 |
| | 313 | 210, 211, 220, 221, 223, 311, 312 |
| SWD | 315 | 240, 243 |
| | 316 | 241, 244 |
| | 317 | 242, 245 |
| TAC | 320 | 210, 211, 220, 221, 223, 240, 241, 242, 243, 244, 245, 261 |
| | 321 | 210, 211, 220, 221, 223, 240, 241, 242, 243, 244, 245, 261, 320 |
| ESC | 322 | 250 |
| HIE | 400 | |
| | 401 | |
| | 402 | |
| | 403 | |
| | 404 | |
| | 405 | 403 |
| DACM | 410 | 240, 241, 242 |
| | 411 | |
| | 412 | 411 |
| | 414 | |
| | 415 | 414 |
| | 416 | 414, 415 |
| NBC | 421 | |

Figure 2-4.--MOS 6174 Flight Update Chaining.

| <u>STAGE</u> | <u>FLIGHT</u> | <u>FLIGHTS UPDATED</u> |
|--------------|---------------|------------------------|
| CQ | 431 | |
| | 432 | 431 |
| | 433 | 431, |
| | 434 | 431, 432, 433 |
| | 435 | 431, 432, 433 |

Figure 2-4.--MOS 6174 Flight Update Chaining--Continued.

AERIAL GUNNER/OBSERVER FLIGHT UPDATE CHAINING

| STAGE | FLIGHT | FLIGHTS UPDATED |
|-------|--------|---|
| TERF | 210 | |
| | 211 | 210 |
| NS | 215 | 210, 211 |
| CAL | 220 | |
| | 221 | 220 |
| | 223 | 220, 221 |
| SWD | 240 | |
| | 241 | |
| | 242 | |
| | 243 | 240 |
| | 244 | 241 |
| | 245 | 242 |
| TAC | 261 | 210, 211, 220, 221, 223, 240, 241, 242, 243, 244, 245 |
| ANSQ | 311 | 220, 221, 223 |
| | 312 | 220, 221, 223, 311 |
| | 313 | 210, 211, 220, 221, 223, 311, 312 |
| SWD | 315 | 240, 243 |
| | 316 | 241, 244 |
| | 317 | 242, 245 |
| TAC | 320 | 210, 211, 220, 221, 223, 240, 241, 242, 243, 244, 245, 261 |
| | 321 | 210, 211, 220, 221, 223, 240, 241, 242, 243, 244, 245, 261, |
| | 320 | |
| DACM | 410 | 240, 241, 242 |
| | 411 | |
| | 412 | 411 |
| | 414 | |
| | 415 | 414 |
| | 416 | 414, 415 |
| NBC | 420 | |
| CQ | | |
| | 431 | |
| | 432 | 431 |
| | 433 | 431 |
| | 434 | 431, 432, 433 |
| | 435 | 431, 432, 433 |

Figure 2-5.--Aerial Gunner/Observer Flight Update Chaining.